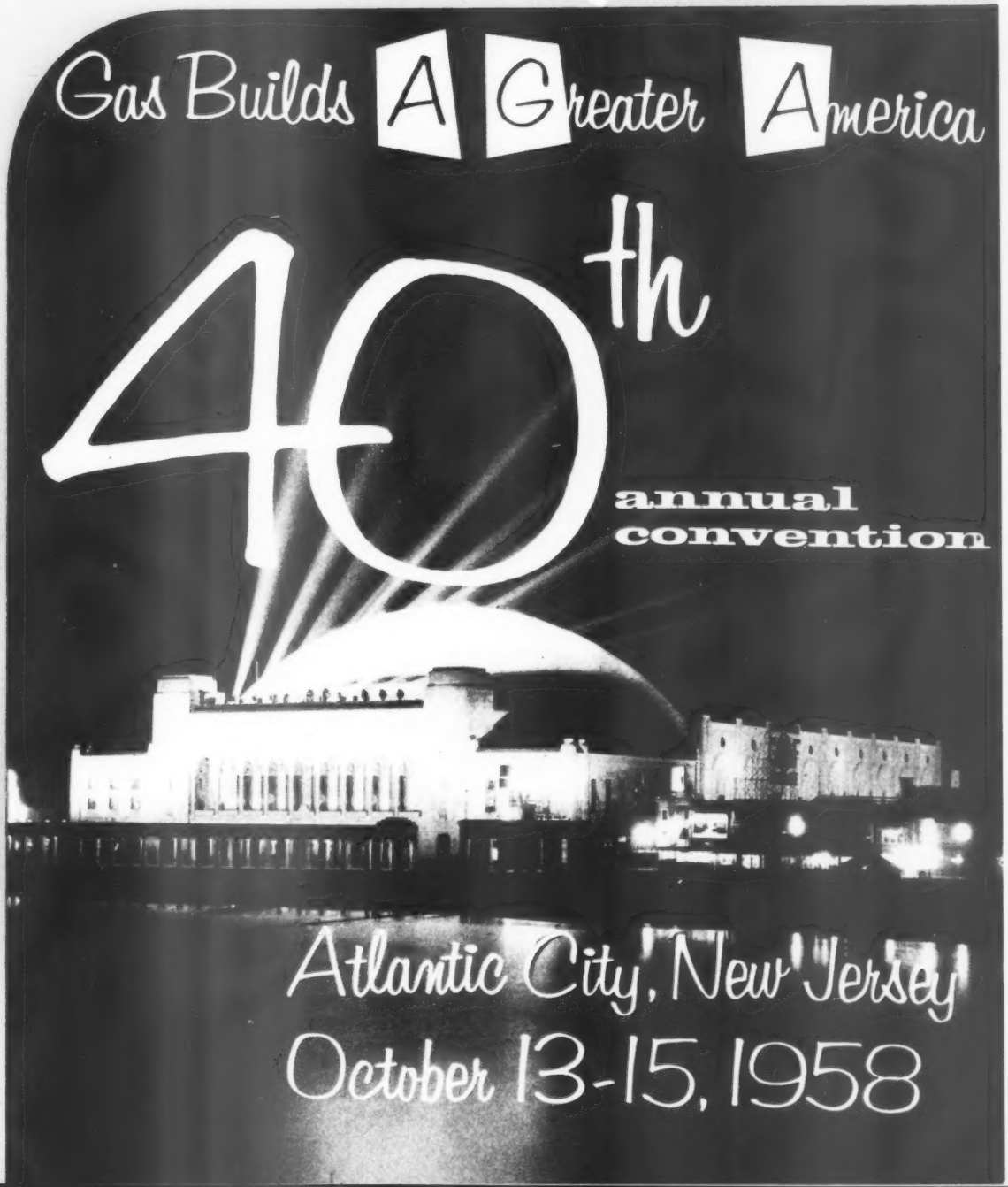
AMERICAN GAS ASSOCIATION

Monthly



EPTEMBER
1958

Convention Delegates and their Ladies are Cordially Invited to

"THE CITY OF GAS LIGHT"

Parade of Gas Industry Research
plus
The New All-Gas Multimatic Wall

Parade of Magazine-Designed
New Freedom Gas Kitchens
and
Laundries

A.G.A.
"PARADE of GAS PROGRESS"

Parade of 60 New and Significant Technical Developments in Gas Utilization, including

- Gas air conditioners
- Gas ranges
- Gas refrigerators
- Smokeless, odorless gas incinerators
- School room gas heaters
- Gas controls
- Other new developments in domestic, commercial and industrial gas equipment

World Premiere
of
Whirlpool's
$250,000
"MIRACLE
GAS KITCHEN"
of Tomorrow

The "PARADE OF GAS PROGRESS" will be open from Noon to 6 PM, October 12 to 15, to all delegates and ladies attending the 1958 A.G.A. Convention—admittance by Convention badge.

See the Fabulous Door Prizes for Delegates on display at the "Parade of Gas Progress" headed by 1959 FIRESWEEP 4-DOOR SPORTSMAN DESOTO HARDTOP with these features

- Touch-tuner Radio
- Power Steering
- Dual Antenna
- Windshield Washer
- Hand Brake Light
- Flair Stream Styling
- Auto-temp Heater
- White Sidewall Tires
- Outside Rearview Mirror
- Backup Lights
- New Safe-Stop Brakes
- Fashion-vogue Interior
- Torsion-Aire Ride

There's still time to make plans to attend the 40th annual A. G. A. convention in Atlantic City, N. J.

GAS MAGAZINE will "go daily" Oct. 13-15. Editor J. Fred Ebdon and staff will publish the "A. G. A. Convention Daily" to give delegates attending the 40th annual A. G. A. convention a day-by-day word and picture report of convention happenings. This top editorial team will find plenty to write about at the annual get-together of the industry's top men. Already, the convention is shaping up as one of the most exciting ever held. There's the "Parade of Gas Progress" which will include the "Parade of Gas Research" and the "Parade of New Freedom Gas Kitchens and Laundries," the outstanding general sessions speakers, the Section meetings and the "Time for Greatness" luncheon. For more details, turn to page 2. . . . Construction expenditures of the gas industry reached an all-time high of $1.77 billion in 1957, and forecasts (on page 5) are that the industry will top that record this year by spending nearly $1.87 billion. . . . Martin Goland, vice-president and director, Southwest Research Institute, takes a good look at the research picture. His views on how well the gas industry will meet the increasing challenge of the electric industry begin on page 8.

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CONN
TO LIGHT
THW

Lively Broadway mu uncing

The Old Lamplighter, an historic figure of a bygone era, will return in colorful regalia to "light the way to progress" during A. G. A.'s 40th annual convention, Oct. 13-15, in Atlantic City.

More than 30 gas lamps will turn the "Parade of Gas Progress" into a city of gas lights. Other gas lamps will be on the Boardwalk at the Convention Hall entrance and on the stage at the general sessions. The lights will serve as a reminder to the 5,000 visiting delegates that their industry is rich in nostalgic tradition.

Elwood Sooy of the South Jersey Gas Co. will appear in authentic costume to portray the lamplighter.

Gas lamps are old in tradition, but new in potential. Seldom has a product of old made such a startling comeback. The soft-glow lamps are lighting the way across the nation's select country clubs, homes, famous restaurants and other establishments seeking to add color and good taste to their property.

The 1958 convention is shaping up as one of the most exciting in many years. The opportunity to see the "Parade of Gas Progress" featuring the "Parade of Gas Research" and the "Parade of New Freedom Gas Kitchens and Laundries" will make attendance at the convention a memorable experience.

The general sessions, built around the theme, Gas Builds A Greater America, offer 12 outstanding speakers, headed by radio commentator Fulton Lewis, Jr. They will give delegates an up-to-the-minute report on sales, finances, labor relations, regulation and other vital topics.

All five A. G. A. sections will meet during the convention. As in past years, the annual Home Service Breakfast will be one of the convention's highlights.

To heighten the delegates' interest, a musical extravaganza presented by a professsional Broadway cast will be the closing event of the Wednesday general session.

The musical will introduce the giant 1959 New Super Gas

NTION

WAY TO PROGRESS

A musical extravaganza by producer of utility shows such as one below will entertain convention delegates Oct. 15

uncing new super gas range program will close general sessions

Range Program. Talented actors and beautiful (and talented) girls will extoll the merits of gas ranges by means of eye-arresting costuming, attractive settings and decor, dancing, original music and lyrics, and clever dialogue. Delegates will be getting an advance peek at the million dollar New Super Gas Range Promotion.

Max Richard, New York City producer, will produce the musical. His firm has been associated with industrial shows for many years and in the past has put on performances for gas utility promotions. Theatrical talent will describe the product and promotion in song and story. It will be 40 minutes of entertainment that should serve as a delightful way to bring the general sessions to a close.

The musical will be introduced by W. M. Jacobs, vice-president of Pacific Lighting Corp., and chairman of the A. G. A. Gas Industry Development Committee. Closing remarks will be made by Christy Payne, Jr., vice-president of The Peoples Natural Gas Co. He is chairman of the National Committee to Increase Sales of Modern Gas Ranges.

The "Parade of Gas Progress," first gas appliance convention exhibit since 1952, will present significant new developments in gas appliance and utilization technology of the past two years. Some of the technical developments on display will include: residential and commercial gas air conditioning, gas refrigeration, new gas range broilers using the Schwank burner, a remote control push-button gas range, new type top burner controls, fold down gas burners, new meat thermometer, gas lamps, burners and their valves, controls and ignition devices, school room heaters, new smokeless-odorless gas incinerators, high speed gas burners for hotel and restaurant ranges, and other new significant developments in domestic, commercial and industrial equipment.

Although every kitchen in the "Parade of New Freedom Gas Kitchens and Laundries" will be glamorous and modern, there's one especially designed to whet the imagination of every convention-goer. It's the magnificent new "Miracle Gas

Kitchen" which will be displayed by Whirlpool Corp. Whirlpool spent $250,000 designing this "kitchen of the future," —a masterpiece in modern living.

Its appearance in Atlantic City will be the "world premiere" showing of this all-gas kitchen of the future. The kitchen will illustrate the use of gas in many new ways and also will demonstrate many improvements in currently accepted methods of utilizing gas in the kitchen. Whirlpool officials are keeping complete details a secret until convention time, but they report that it will be the most unusual, advanced kitchen ever shown.

The "Parade of New Freedom Gas Kitchens and Laundries" will be shown by the following magazines in cooperation with the listed cabinet manufacturers: *American Home,* St. Charles Manufacturing Co.; *Better Homes & Gardens,* Whirlpool Corp.; *Family Circle,* Yorktowne Kitchens; *House & Garden,* Republic Steel Kitchens; *Living for Young Homemakers,* three kitchens by I-XL Furniture Co., and a Cardiac kitchen by Tracy Manufacturing Co.; *McCall's Magazine,* Mutschler Brothers Co.; *New Homes Guide,* Dimensional Kitchens; *Parents' Magazine,* Wood-Mode Kitchens; and *Woman's Day,* Nevamar Carefree Kitchens. Two shadow-box gas kitchens will be displayed by *Ladies Home Journal* and *Good Housekeeping Magazine.*

All kitchens and laundries will be featured in the listed magazines. Kitchens and laundries range in size from 10′ by 20′ to 20′ by 20′.

The "Parade of Gas Progress" will display research projects of the past two years covering every phase of the gas industry. Some of the prototypes will include:

The latest in top burner oven and broiler research developments, prototypes of smokeless-odorless incinerators from which current products were developed, high speed water heaters, the "celeriter" oven, models or drawings of branch connection developments and secondary stress studies, a photometer for measuring dust particles in gas streams, prototypes of at least four air conditioning units including the free piston engine development, various phases in odorization research, studies of applications of radiation in gas, and drawings of process designs for production of synthetic gas from coal and oil shale. These are only a few of the items delegates will see.

The general sessions will present these outstanding speakers: A. G. A. President Robert W. Otto, chairman of the board, Laclede Gas Co.; Martin R. Gainsbrugh, chief economist, National Industrial Conference Board; Fulton Lewis, Jr., Mutual Broadcasting System news commentator; James J. Healy, associate professor of Industrial Relations, Graduate School of Business Administration, Harvard University; J. W. McAfee, president, Union Electric Co., and a former president of Edison Electric Institute; Joseph C. Bevis, president, Opinion Research Corp.; Edward R. Thornton, president, National Association of Railroad and Utilities Commissioners; Albert H. Gordon, partner, Kidder, Peabody & Co.; Elisha Gray II, chairman, Whirlpool Corp.; Lyle C. Harvey, senior vice-president, Carrier Corp.; Clifford V. Coons, executive vice-president, Rheem Manufacturing Co., and president, Gas Appliance Manufacturers Association; and W. M. Jacobs, vice-president, Pacific Lighting Corp.

The theme of the final luncheon will be "A Time for Greatness." President Otto will preside and introduce the speakers, Glenn W. Clark, presidential nominee of the Independent Natural Gas Association of America, and C. S. Stackpole, A. G. A. managing director.

Mr. Clark, president, Mississippi River Fuel Corp., will tell what pipeliners can do to help build a greater America. His topic will be "A Time for Greatness."

Mr. Stackpole has chosen as his topic, "Making the Most of Our Opportunities." He will discuss what the gas industry can and should do to make the most of our opportunities.

Julia Meade, the gas industry's television hostess on *Playhouse 90,* will be introduced at the Wednesday general session.

Delegates who attend the "Parade of Gas Progress" and the "Time for Greatness" luncheon will be eligible for several attractive door prizes including a 1959 DeSoto.

Fifty companies have signed up to exhibit in the "Parade of Gas Progress" thus far including the following:

American Air Filter Co., Inc., Arkla Air Conditioning Corp., Bastian-Morley Co., Inc., Bowser, Inc.—Incineration Div., The Broaster Co., Bruest, Inc., Bryant Manufacturing Co., Calcinator Corp., Caloric Appliance Corp., Carrier Corp., Christiansen Co., H. D. Conkey & Co.,—Field Control Div., Controls Co. of America, Dixie Products, Inc., Dynamic Engineering Corp., Equitable Gas Co., John J. Fannon Products Co., General Controls Co., Gifford-Wood Co., Hadco Aluminum Products Co., Hardwick Stove Co., Harper-Wyman Co., A. F. Holden Co., W. L. Jackson Manufacturing Co., Jet-Heet, Inc.

Locke Stove Co., Lucas-Rotax Limited, Magic Ray, Inc., The Majestic Co., Inc., Malleable Steel Range Mfg. Corp., Martin Stamping and Stove Co., McNaulin, Inc., Modern Home Products, Norco, Inc., Norge Sales Corp., Norman Products Co., O'Keefe & Merritt Co., Perfection Industries—Div. of Hupp Corp., Philco Corp., Queen Products Div., King-Seeley Corp., The Ready-Power Co., Robertshaw-Fulton Controls Co., Geo. D. Roper Corp., Scully Signal Co., Specialities Appliance Corp., Suburban Appliance Co., The Sunray Stove Co., Waste King Corp., The Webster-Engineering Co., Whirlpool Corp.

Magazine lauds Julia Meade for her sales ability

"Television," a monthly trade magazine, lauds Julia Meade for her sales ability. Harry McMahan, vice-president of Leo Burnett Co., in the June issue of his regular column on TV commercials, had this to say about her:

"It seems like several springs that we have been watching Julia Meade. First for Lincoln and now for American Gas Association.

"Maybe we were a little skeptical about this gal Julia in the early days but we have become more and more convinced that she is among the best in the business. She has a styling and a smartness to her work that makes a rich impression on her viewers. But she also has the unique knack of making this tone of commercial come through with a warmth that makes the message believable far beyond most of her colleagues.

"A basket of roses to a great gal."

'58 expansion costs may top record

The gas industry's construction expenditures reached an all-time high of more than $1.77 billion during 1957, and new forecasts indicate the industry will top that record this year by spending nearly $1.87 billion for expansion of gas facilities throughout the United States.

In the annual survey of gas utility and pipeline construction expenditures, A. G. A. reports that last year's record high of $1,772 million in construction outlays represents a 14.2 per cent increase over the $1,552 million spent in 1956.

The Association now estimates that construction expenditures this year will set a new record of $1,868 million, while next year's expansion programs will total about $1,736 million.

During the two-year period which includes 1958 and 1959, total anticipated construction expenditures of $3,604 million will be 8.4 per cent above the previous two-year high of $3,324 million, established in 1956-57. More than 96 per cent of the construction funds will be used for the expansion of natural gas facilities.

The extension of transmission systems accounted for the largest single share of last year's construction expenditures, with such expenditures amounting to $753 million during the 12-month period. Transmission construction outlays are expected to rise to $918 million this year and will be $693 million in 1959.

Expenditures for distribution facilities construction, which have shown a steady increase in recent years, totaled $593 million in 1957. This figure represents an 11.1 per cent gain over the $534 million spent the previous year.

A. G. A. estimates that construction of distribution facilities will aggregate $575 million in 1958 and will climb to a new high of $682 million in 1959. Expansion of distribution plants and facilities is expected to cost $624 million in 1960 and $610 million in 1961.

Gas industry expenditures for the construction of production and storage facilities also reached an all-time high of $350 million last year. Outlays will total $289 million this year and $280 million in 1959.

The industry now has a network of mains extending nearly 549,000 miles, including 23,600 miles added during 1957. Local utility companies increased their distribution systems by 14,900 miles last year, while transmission systems grew by 6,300 miles. Field and gathering networks operated by gas utility and pipeline companies increased by 2,400 miles during the year.

The total utility plant of the gas industry rose to a new peak of $16.69 billion at the end of 1957, up 11.8 per cent from the previous year's level of $14.93 billion. By the end of last year, the industry's total assets had increased to a record high of $19.76 billion.

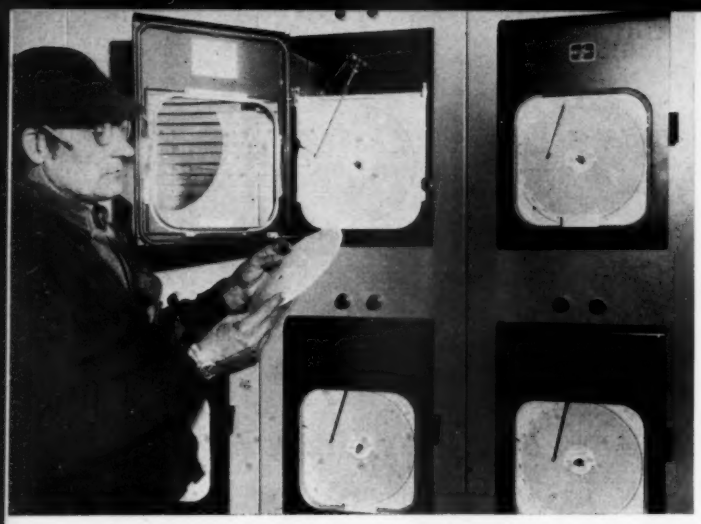
Noting that 1957 construction expenditures did not reach earlier forecasts, A. G. A. attributed the reductions to the impact of regulatory and judicial factors. Delays in granting certificates of convenience and necessity, regulatory confusion caused by the Phillips and Memphis Decisions, and the modest effect of the general business recession all combined to curtail last year's gas industry building and development programs.

The Memphis Decision last November also affected A. G. A. forecasts of future construction spending. The Association's new survey report includes two-year projections of transmission construction expenditures instead of the four-year estimates presented in previous annual studies. The U. S. Court of Appeals decision in the Memphis Case has created uncertainty in the gas industry, particularly among pipeline companies. This has led many large transmission companies to limit their own forecasts of future construction expenditures to 1958 and 1959.

GAS INDUSTRY CONSTRUCTION EXPENDITURES, 1955-1959

(Millions)

TYPE OF GAS AND FUNCTION	1955	1956	1957	1958	1959
Natural Gas—Total	$1,246.7	$1,468.4	$1,704.3	$1,804.7	$1,672.2
Production and Storage	183.6	229.9	342.0	281.6	269.6
Transmission	586.4	702.2	751.3	915.3	690.8
Distribution	428.0	466.7	538.0	523.5	636.0
General	48.7	69.6	73.0	84.3	75.8
Other Types of Gas—Total	98.2	83.5	68.0	63.3	63.9
Production and Storage	15.0	8.6	7.7	7.1	11.7
Transmission	6.0	2.1	1.6	2.2	2.6
Distribution	71.7	66.7	54.8	51.6	46.3
General	5.5	6.1	3.9	2.4	3.3
Total Industry—Total	1,344.9	1,551.9	1,772.3	1,868.0	1,736.1
Production—Storage	198.6	238.5	349.7	288.7	281.3
Transmission	592.4	704.3	752.9	917.5	693.4
Distribution	499.7	533.4	592.8	575.1	682.3
General	54.2	75.7	76.9	86.7	79.1



In the Consumers Power Co. telemetering room, meters record pressure and sendout in the system which provides service to 211,000 customers

Customer credit and history facilities are features of the new center which permit telephone answerers instant access to customer information

Consumers Power Co.'s new service center for its Southeast Division features this modern service and office building for 600 employees

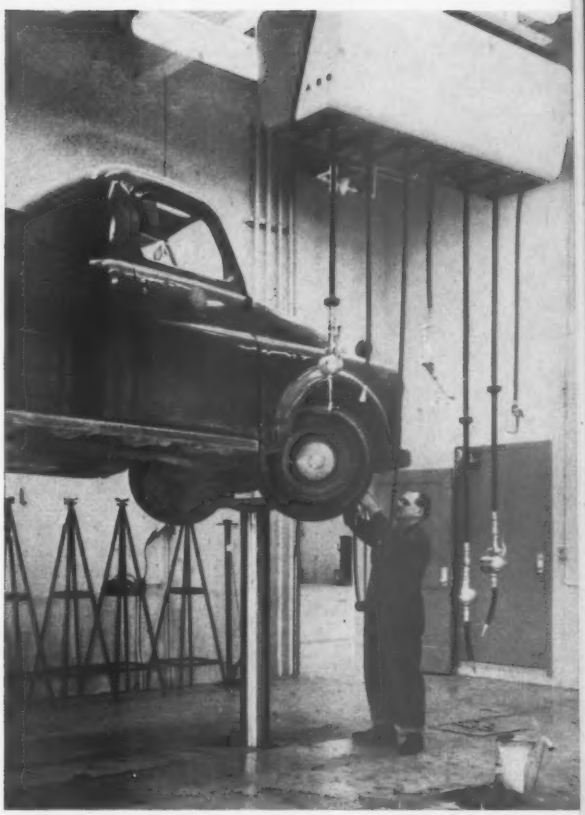
New headquarters serves 211,000 gas customers

Headquarters for its natural gas service to 211,000 of its customers is the new southeast division service center of Consumers Power Co.

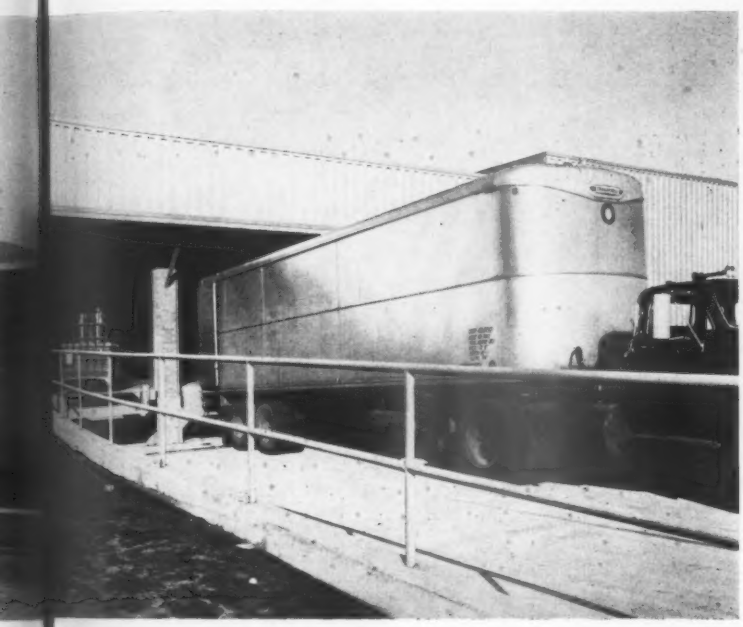
Consumers, which is headquartered at Jackson, Mich., opened the doors of the big new center in Royal Oak, about 75 miles from Jackson, in open house ceremonies April 26 and 27. Some 7,250 residents of the area visited the center.

The building houses division offices for Division Manager David H. Gerhard and his staff. It also houses service facilities, including the service fleet, for the South Oakland district, which has headquarters in downtown Royal

The employee canteen at Consumers Power Co.'s new Southeast Division Service Center adjoins the public meeting room. When removable wall is removed, 500 may be seated



Modern fleet service facilities provide excellent maintenance efficiency for Consumers Power Co.'s new center



The center has modern vehicle loading and unloading facilities and adequate warehousing

Oak, a city immediately north of Detroit. Consumers does not serve in Detroit proper, but in its Southeast Division serves most of Detroit's northern and some of its western suburbs. The division area encompasses 863 square miles, and its 211,000 natural gas users represent 45% of all the gas customers Consumers has. The company provides gas in a 29-county service area in the southern part of Michigan's Lower Peninsula.

The service center was under construction 14 months on a 19-acre site where the company used to manufacture gas, in the days before natural gas came to Michigan from the Southwest. The headquarters building itself encompasses 118,000 square feet, with some 200,000 square feet outdoors devoted to carports and truck loading areas. There is a parking lot for 800 automobiles.

Consumers' southeast division headquarters staff includes 368 employees. Also housed at the center are 240 employees assigned to district operations.

Indicative of the growth of the suburban area served by the division is the total gas customer figure of 1945—which was 71,000 as against today's 211,000.

Besides Royal Oak, district headquarters are maintained by the company within the division at East Detroit, Plymouth and Pontiac.

Features of the service center are a public meeting room for 500 people which is equipped with a complete modern gas kitchen and a complete gas utility room, plus a second gas kitchen "backstage" which also serves as a training kitchen for the company's home economists. The central display in the lobby of the building is a "patio kitchen" featuring the gas barbecue. No merchandising is done at the center.

The building's display kitchens are used for demonstration purposes only.

A top research leader looks at the horizon—and finds it somewhat indistinct

Only research can conquer the future

By MARTIN GOLAND

Vice President and Director
Southwest Research Institute

How well will the domestic gas industry meet the increasing challenge of the electrical industry? To what extent will nuclear energy, and other novel forms of energy utilization invade the energy market to the disadvantage of gas? Will the petrochemical uses of gas become so competitively attractive that major reserves of fuel gas will be diverted to these non-fuel applications?

These are but a few of the questions which require answer in an appraisal of the future. Some comfort is drawn from the statisticians, who predict an energy-hungry society for years to come; but even in an era of scarcity, products of diminishing competitive advantage tend to lead uncertain lives.

Paradoxically, these troubling thoughts arise at a time when the demand for fuel gas continues to rise. The geographic horizons of the industry are steadily expanding, and the principal long-range problem appears, on the surface at least, to be that of attracting sufficient capital to enable the acquisition of waiting markets.

This is transient comfort, however, in our present age of technical acceleration. Within the space of comparatively few years, industries of long standing have found their positions suddenly undermined by the shifting tides of advancing technology. We need not look far from the transportation field for examples. Consider the suddenness with which air transport has emerged as a major industry, leaving behind a trail of emptied passenger trains. Think also how rapidly the Diesel engine obsolesced the once-proud "iron horse."

It is on this account that those who study the future of American industry invariably find the roots of their analysis in the research laboratory and the engineering office. Over-riding all other considerations is the certainty that new knowledge will make some branches of industry stronger, and others less able to continue the competitive race.

How successful, then, is the gas industry in its preparation for the future? How well is the industry being supported in its upward climb by the forces of research and development?

During a recent visit with my parents in their home, with preparations for this talk very much on my mind, we discussed the role of fuel gas in the domestic household. I asked my mother how she would like to have a gas bread toaster. At this point, I fear she concluded that a perfectly sound engineering education had gone astray; everyone knows that modern toasters are all electric! True, she did recall an ancient model of a toaster which was placed over a gas range burner—it did a fine job, some 30 years ago. How did it compare with the electric toaster of the same vintage, I asked her. It did not take much remembering to bring to mind unhappy recollections of the early electric toasters. Along with the bread, they invariably burnt the hands of the user. Turning a piece of bread from one side to the other (you will recall that only one side was toasted at a time) without a catastrophe required practice, manual dexterity, and good fortune.

Continuing the train of thought, we conjectured what might have happened if a development-conscious gas industry had continued to refine its toaster with the same perseverance shown by the electrical industry over the past decades.

Is it beyond reason to conceive of a thermostatically controlled, pop-up gas toaster which is plugged into a gas outlet on the range, or into receptacles conveniently placed about the kitchen for

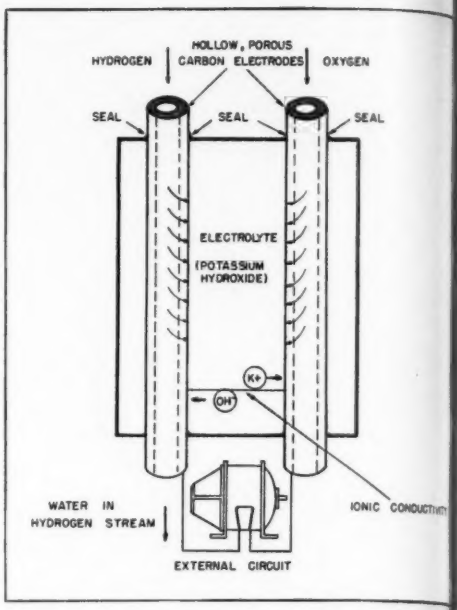


FIG. 1—Schematic diagram of the hydrogen-oxygen fuel cell (Ref. "C & E News", Vol. 35, No. 38, Sept. 23, 1957)

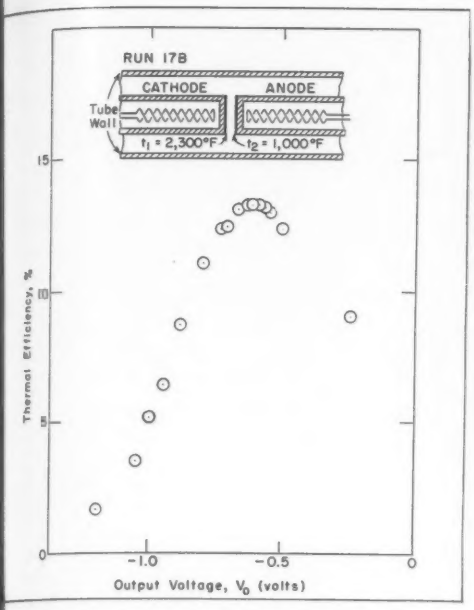


FIG. 2—Experimental results for simple diode configuration of thermal electron engine (Hatsopoulos and Kaye)

FIG. 3—Pilot model of an improved absorption-type, gas-fired air conditioner developed for the American Gas Association at Southwest Research Institute

service to appliances?

Lest the argument be raised that plug-in type receptacles for gas are virtually outlawed by stringent code requirements, let me counter by saying that history, rather than engineering, has controlled their development; any creative design group would have little difficulty in producing acceptable units, and in fact I have been informed that such designs already exist.

Our thinking can be extended along parallel lines to other household devices as well, but it is not my aim to enter into a discussion of home appliances. It is, in fact, inconsequential to my main line of reasoning to have your active agreement with the thesis that, under different historical environment, gas toasters could actually be in our homes today. The main point I would like to make is simply this—while an industry competitive to gas struggled with its early problems and overcame them, the gas industry in many cases remained passive. New concepts for gas utilization did not generate spontaneously, as they did in the electrical area, and gas technology continued its slow and placid growth. True, the industry prospered, but it did so by supplying the needs of well-defined markets, not by opening new vistas through creative technical inspiration.

It is worthwhile exploring this question more fully, for here we have an important key to the uncertainties now facing the industry. The magnificent engineering achievements of the gas industry are well-known, but where in its history are the revolutionary scientific breakthroughs which would have swept the industry forward in the competitive race?

Thus far, I fear, many of the laurels have gone to the electrical industry. Sound engineering coupled with aggressive and continuing research have paid big dividends. The electrical price index has essentially maintained its stability over the past years; compared with this, the price index of fuel gas has steadily risen, although this rise has not paralleled the general cost-of-living increase. Equally significant, decades of cumulative research and development blossomed into an electrical invasion of the traditional fuel-gas markets, an encroachment which is now reaching truly serious proportions.

The petrochemical industry, also, is not permitting its pace to lag in commanding an increasing share of our natural gas resources; again, aggressive research is acting as their competitive spearhead.

How, then, did the present situation arise? Why is the gas industry lagging behind its neighbors in consolidating and strengthening its market position? Is it because significant new ideas are impossible of achievement in the fuel-gas area, much in the same manner that no amount of research would have saved the horse-drawn buggy in its surrender to the automobile?

Along with me, I know that you will reject this as a fallacious direction of reasoning. In my opinion, we shall be nearer the heart of the matter when we advance the thought that an under-nourished, insufficient research and development program has robbed the industry of a vitality from which it otherwise might have benefited.

Let me quote at this point from a recent report issued by the A. G. A. Air Conditioning Promotion Committee. The quotation is as follows:

"Begin from the Summit"

"Gas companies with the most successful air conditioning sales programs are those in which top management has clearly defined for all employees the importance of the company's air conditioning program. There is no substitute, to

judge from successful case histories, for this clear definition by top executive management . . . of the company's vital interest in attaining its air conditioning goals."

"Continuing management enthusiasm does more to spur employee activity and interest than any other factor . . ."

It seems to me, gentlemen, that parallel words could be written about the gas industry research program. Has gas industry management consistently followed the policy of encouraging and adequately supporting the important research activity?

Let me not, however, be guilty of oversimplification in this discussion. The meteoric growth of the gas industry during recent decades is an impressive fact, and the immediate problems of rapid expansion required prime management attention. In looking to the past, therefore, there is no intent to exercise hindsight. Rather, we are using the past only in order to see the future more clearly.

Looking ahead, I contend that the gas industry must have a stronger and very much expanded effort in research and development. This will come to pass only if top management supplies the incentive by actively encouraging a lively enthusiasm for new ideas, and only if management makes its goal clear by properly funding the research program. When this is done, the technical leaders of the industry will rise to the challenge and bring forth the new concepts which will build a stronger industry. The role of top management must be an active one—the heartbeat which motivates the living process of searching for better ways to use fuel gas!

The facts to date indicate only an awakening in this direction. Research is now a popular topic for discussion among management circles, but action is still puny and underdeveloped. The research and development budget of the A. G. A. is now around $2 million a year. This represents 0.034 per cent of the gross revenue of the gas utility and pipeline industry during 1956. For a thoroughly conservative estimate of what the average American industry is spending for research and development, let us use the figure of 1.6 per cent of gross sales; this was reported by the Harvard University Graduate School of Business Administration for the year 1951 on the basis of an extensive field survey, and certainly the figure has risen since then. On this basis, the gas industry budget for research and development should be at least $93.5 million. Remember, we have used the average expenditures of American industry as our guide, reflecting both the experience of research conscious industries, as well as those which are lagging technologically.

At this point, let me state my opinion that the gas industry is receiving excellent value for its research dollar through the A. G. A. PAR program. The Southern Gas Association is also meeting with considerable success in its limited research undertakings. But let me also emphasize that the over-all effort is far from commensurate with the primary needs.

I contend that we cannot have a $90 million goal on a $2 million budget!

One additional point to strengthen my case. The following is a quotation from the 1957 annual report of the General Electric Co.: "General Electric again spent on research and development in 1957 a sum amounting to well over 6 per cent of sales, compared with an average of about 2 per cent for manufacturing companies in all U. S. industries." Research and development expenditures thus exceeded $260 million, a figure which is actually greater than the net earnings of the company during the same year.

Research by manufacturers

Now, some may argue that the General Electric statistics are inapplicable to our present discussion, since General Electric is not a utility-based concern. True, the historical development of electricity has produced a strong complement of manufacturers who absorb the primary burden of research and development. Our legitimate concern here, however, is with the over-all competitive status of the gas vs. the electric industries. The General Electric Co. and the Westinghouse Electric Corp. (the latter with a $15.5 million research and advanced development budget for 1957) are integral parts of the electrical industry, and must be dealt with as such.

This highlights one of the major problem areas of the gas industry, namely, how can the growth of strong manufacturers' research and development be encouraged? Despite the intra-industry details, we must stay with the conclusion that, through one means or another, the research and development function of the gas industry must be adequately fulfilled.

We are now brought face to face with the central question—how much should the gas industry be spending on research and development? To answer this, we cannot overlook historical development; to suggest a drastic increase over current expenditures in the immediate future lacks practicality, since the research capability within the industry could not be expanded with sufficient rapidity to absorb these funds. Momentum must be gathered gradually, but as rapidly as possible.

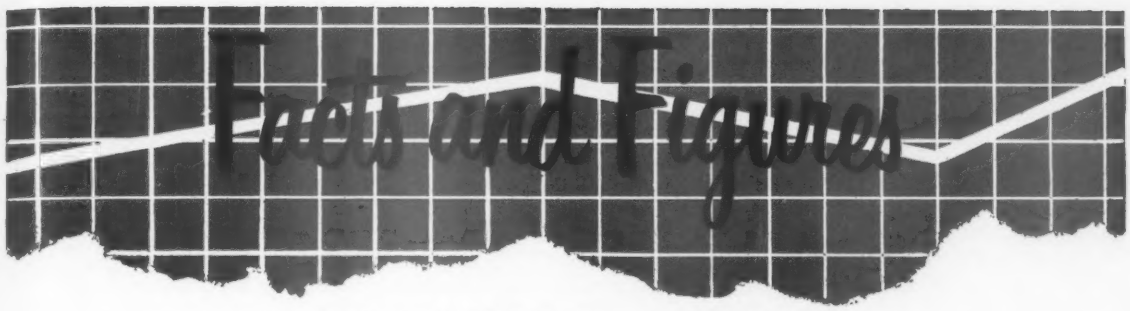
A reasonable goal for the next several years might well be to raise the levels of research and development budgets by around 50 per cent each year. Thus, the current annual budget of $2 million would become $3 million during the first year of growth; $4.5 million during the second year; and around $6 million by the end of the third year. Logical progression, based on sound and progressive planning, would then chart the course for the future.

I am visualizing that these funds will be used for fundamental research and for applied research and development of industry-wide significance. In addition, the manufacturers must increase their research and development activities. Last year, gross sales by manufacturers serving the gas industry totalled some $650 million; at the average rate of 2 per cent, this would indicate some $13 million to be invested in research and development. While I have no actual figures, informed sources estimate that their expenditures did not exceed even half this figure—so here is another gap to be filled.

Summing up, an industry research and development expenditure of some $6 million annually by the gas utilities, plus an increase in manufacturers' budgets of around 50 per cent, should be the goal for the next several years. This program is reasonable—not only reasonable, but also necessary in building for the future.

If statistics indicate that gas industry research effort should be increased, the logical question arises—in what areas should these funds be spent? Important clues can be found in the research recommendations emanating from the A. G. A. and its working committees, but in many instances their outlook has been colored by the practicalities of fitting their goals to the current low level of expenditure. Let me suggest a few major fields where accelerated research

(Continued on page 33)



Prepared by A. G. A. Bureau of Statistics

Gas utility and pipeline construction expenditures during the first quarter of 1958 were $284 million, down from the $312 million expended during the first quarter of 1957. Preliminary construction expenditures for the second quarter of 1958 are estimated at $537 million up 17.2 per cent over the $458 million spent during the comparable quarter in 1957. Total 1958 construction expenditures are budgeted in the amount of $1,868 million, a record high for the gas industry and 5.4 per cent above 1957 expenditures.

Total sales of the gas utility and pipeline industry during June, 1958 amounted to 5,076 million therms, 1.2 per cent under the 5,139 million therms sold in June of last year. This is only the second time since 1949 that total gas sales have registered a decline. Sales to industrial consumers during June, 1958 amounted to 3,541 million therms, an increase of 4.1 per cent over the 3,403 million therms sold in June, 1957. Industrial production, as measured by the Federal Reserve Board index, was down 10.3 per cent from the same month last year. The index of industrial production (1947-1949 = 100) for June, 1958 was 130, 15 points less than the index of 145 for June, 1957. The Association's June index of gas utility and pipeline sales is 218.8 (1947-1949 = 100).

During the 12 months ending June 30, 1958, total utility and pipeline sales of gas aggregated 79,192 million therms, equivalent to an increase of 6.4 per cent over the 74,412 million therms consumed in the 12 months ending June 30, 1957.

Housing starts in July reached a seasonally adjusted annual rate of 1,160,000 units, the highest adjusted rate since January, 1956, the Labor Department reported. July housing starts totaled 111,000 units, up 13.5 per cent over

(Continued on page 48)

SALES OF GAS AND ELECTRIC RESIDENTIAL APPLIANCES DURING JULY 1958

(WITH PER CENT CHANGES FROM THE CORRESPONDING PERIOD OF THE PRIOR YEAR)

	July		June		First Six Months Ending June 30, 1958	
	Units	Per Cent Change	Units	Per Cent Change	Units	Per Cent Change
RANGES (including built-ins)						
Gas	131,600	— 4.2	155,900	+ 0.4	863,800	—11.0
Electric	n.a.	n.a.	116,800	+14.2	644,000	— 9.9
WATER HEATERS						
Gas	218,700	+13.6	231,000	+ 9.1	1,336,200	+ 0.2
Electric	n.a.	n.a.	74,600	+ 5.8	397,500	+ 1.2
GAS HEATING—Total	90,900	+10.4	89,800	+20.7	409,100	+ 6.3
Furnaces	67,700	+18.6	70,200	+26.7	319,300	+ 8.3
Boilers	11,600	+16.0	9,500	+11.8	40,700	+ 3.6
Conversion Burners	11,600	—23.7	10,100	— 3.8	49,100	— 2.8
OIL-FIRED BURNER						
Installations	40,042	—21.5	30,012	—13.0	201,445	— 6.9
DRYERS						
Gas	n.a.	n.a.	19,260	+32.5	114,770	—20.0
Electric	n.a.	n.a.	34,910	+ 5.3	271,780	—17.3

GAS SALES TO ULTIMATE CONSUMERS BY UTILITIES AND PIPELINES DURING JUNE

(MILLIONS OF THERMS)

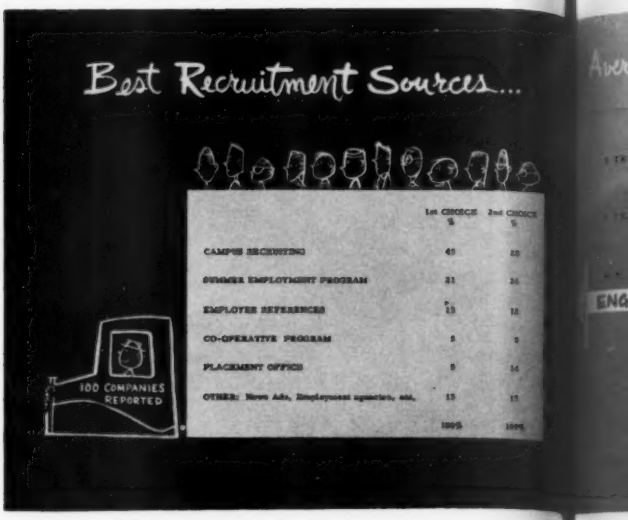
	1958	1957	Per Cent Change
Month of June			
All types of Gas	5,075.7	5,139.2	— 1.2
Natural Gas	4,944.7	5,009.3	— 1.3
Other Gases	131.0	129.9	+ 0.8
Twelve Months Ending June 30			
All types of Gas	79,192.0	74,411.5	+ 6.4
Natural Gas	76,781.4	72,101.4	+ 6.5
Other Gases	2,410.6	2,310.1	+ 4.4
June Index of Monthly Utility Gas Sales (1947-49 = 100)	218.8	221.5	— 1.2

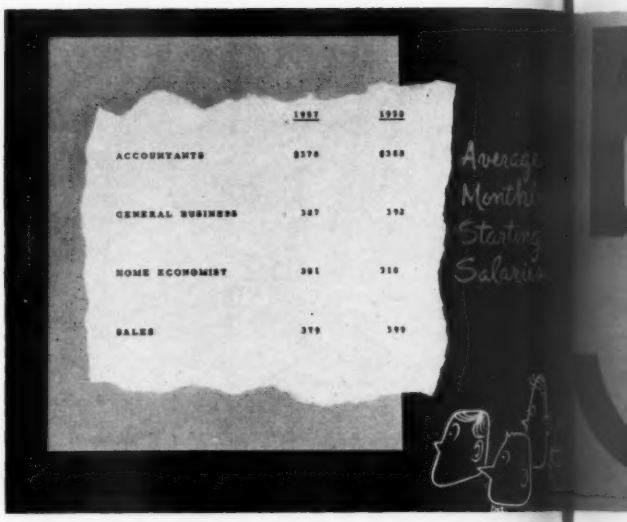
PERTINENT BUSINESS INDICATORS, JUNE

(WITH PER CENT CHANGES FROM CORRESPONDING PERIOD OF THE PRIOR YEAR)

	June			May		
	1958	1957	Per Cent Change	1958	1957	Per Cent Change
Industrial activity (1947-49 = 100)	130	145	—10.3	128	144	—11.1
Consumer prices (1947-49 = 100)	123.7	120.2	+ 2.9	123.6	119.6	+ 3.3
Housing starts, Non-farm (thousands)	115.0	99.9	+15.1	105.0	103.0	+ 1.9
New private construction expenditures ($ million)	2,974	3,060	— 2.8	2,773	2,882	— 3.8
Construction costs (1947-49 = 100)	168.3	159.8	+ 5.3	167.2	159.2	+ 5.0

Survey reveals an awakening interest in the recruiting field, but indicates a need for better relationship between industry and college





Gas industry goes to college campus for most recruits

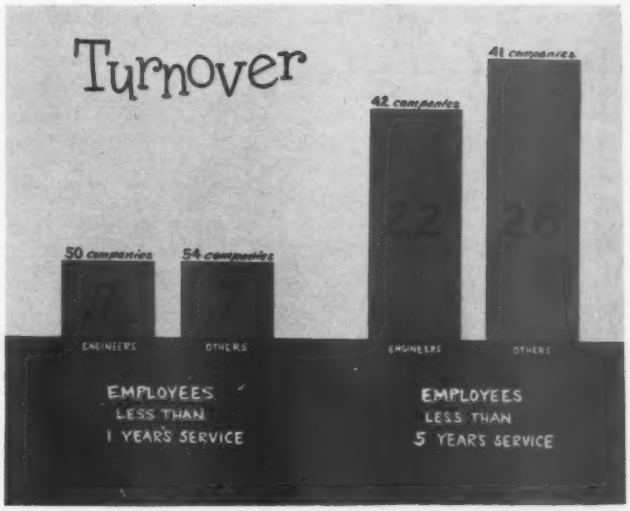
Where is the best hunting ground for the college graduate? What is his average starting salary in the gas industry? Who makes the final selection in hiring? How many college graduates leave with less than a year's service? Less than five years? And what is the average salary for a college graduate after five years with a company?

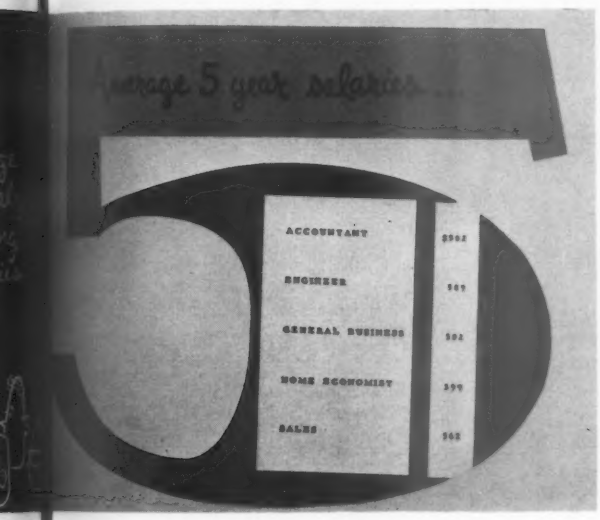
These are some of the questions in a survey of company practices on recruiting college graduates. One hundred and nine gas companies, with a total of 270,085 employees, responded to a questionnaire circulated by the A. G. A. Task Committee on College Recruiting. They averaged 2,478 employees per company, ranging in size from one company that employs 14 persons to another with 25,000 employees.

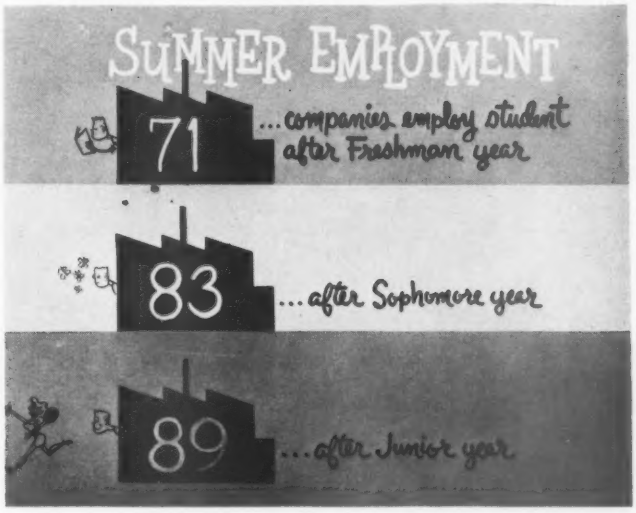
As for the best hunting ground, 43 per cent of the companies found the campus the best place to recruit. Nearly half as many companies have found their summer employment program a better source of recruitment and an equal number of companies said their summer employment program was the second best choice.

Sixty-two companies indicated planned visits to college campuses this year. Some planned to visit only one college while another company expected to have its representatives on 83 campuses. The average number of colleges visited by each company was 12. Twenty-four of the companies plan to visit some of the schools both in the spring and in the fall. The average number of recruiters employed by a company is three, ranging from a low of one to a high of nine.

A large number of companies utilize special booklets and visual aids to help in college recruitment. Fifty-nine companies said they distributed illustrated booklets about their company to college placement officers. Training programs of 21 companies are described in booklets







which are also distributed to college placement officers. Five companies have prepared films which are used in recruiting.

Summer employment programs, which many of the companies rated highly as a source of college recruits, are used by approximately 80 per cent of the responding companies. Seventy-one companies employ college students during summer vacations after their freshman year, 83 companies employ them after their sophomore year, and 89 companies employ them after their junior year.

A considerable number of companies participated in a cooperative arrangement with students and colleges whereby a student alternates between college and a company for specified periods of time. In 1957, seven of the responding companies had such an arrangement with 23 accounting students, 21 companies were cooperating with 132 engineering students and four companies cooperated with 19 general business students. A total of five other companies sponsored cooperative programs with 15 students of home economics, sales, and other categories.

Of each ten college graduates interviewed, an average of three are invited to the company for further interviews. Of each ten men offered a job after they have been interviewed at the company an average of five accepted. During his visit to the home office, the applicant is interviewed by an average of three company representatives.

At 59 of the 97 responding companies the department head involved makes the final decision as to the applicants' suitability. A vice-president makes the decision at ten companies while a group decides at eight companies.

The president, the personnel manager, the training committee, the general manager, and others make the final decision in the balance of the responding

companies.

As can be seen by the accompanying chart, starting salaries for all categories of college recruits have increased since 1957. Engineers still command the top starting salary, and those engineers with a master's degree and prospective salesmen have had the greatest increase over last year.

How is the class of '52 making out in the gas industry? Another of the accompanying charts tells the story. The engineering recruit still leads in the salary parade, though perhaps by not as great a margin as compared to present starting salaries. It is interesting to note that the average sales recruit after five years' service is making almost as much as the average engineering recruit.

Once hired, how long does the average college recruit stay with the company? Longer than might be expected in these days of rapid turn-over and job shifts. Of 100 college recruits an average of seven left before the end of a year's service. Of 100 engineering college recruits hired, an average of 22 persons left with less than five years' experience, while an average of 26 of the other college recruits left in the same period. These departures do not include entering military service. None of the responding companies takes the applicant's draft status into consideration in the hiring of college graduates.

How successful have the responding gas companies been in recruiting college graduates? According to the survey, 97 per cent of the 1957 quota of accountants was obtained, 77 per cent of the engineers, 94 per cent of the home economists, 96 per cent of the general business students, 89 per cent of the sales personnel, and 98 per cent of the other categories. The 1957 quotas of the responding companies total 1,294 college graduates, of which 670 were engineers.

How much does it cost a gas company to obtain a college recruit? The average, according to the 31 companies who gave an approximate answer, is $273 per recruit. These estimates range from a low of $25 to a high of $650.

Some readers may recall that two years ago a similar survey was conducted among 21 gas companies. At that time the survey results indicated that a minimum of support was being exerted through formal programs of college recruitment.

This recent survey suggests that an awakening is taking place in this vital area of personnel activity. Along with the "awakening", however, many company representatives feel that a big job is still ahead. In answer to the question, "Are college seniors attracted to public utilities as much as they are to other type companies" only 19 of the responding companies answered "yes."

The gas industry-college relationship, however, is being strengthened and it can be assumed that the survey results are encouraging to the industry as a whole.

Meet your Association staff

Jac A. Cushman

Jac Allerton Cushman, secretary and convention manager, can't say no to a challenge. He likes nothing better than to start with an idea, bat it around for a while, then wallop it southpaw style into a practical reality. It's a family trait, started perhaps by the ancestor 13 generations back who got the idea of crossing the Atlantic and ended up chartering the Mayflower.

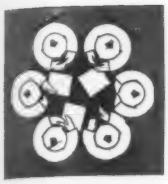
Mr. Cushman's tenacity became evident during his school days. At Trinity Preparatory School, he was not only valedictorian but also head of the student council and editor of the student newspaper. Again at Trinity College, he was active in extra-curricular activities and editor of the paper.

Imbued with printer's ink, he took his B.S. degree and nose for news down to the "Hartford Courant," where he landed a job as a reporter shortly before he was called to the Air Force. While serving in England as a first lieutenant, he did radar work assisted by a corporal—an attractive brunette WAAF named Joan. Two years and numerous signals later, they were wed in England. Upon returning to the newspaper, he rose to assistant financial editor.

In 1947 he joined A. G. A. as editor of the "Monthly," and soon thereafter was recalled to service. Several months after his return, he was advanced to public relations duties in the newly formed Public Information Bureau. This January he was appointed to his present post, which includes duties as secretary of the board, the Executive Committee, and the General Nominating Committee, and charge of the Library and Membership Department.

He lives with his wife and their nine-year-old son, a freckle-faced redhead, in Matawan, N. J. There most of his activities center around his church, where he is an elder, and his home, where he is the sole member of the Cushman House Repair Committee.

Although well known for his follow-through ability, it was as a member of the latter committee that he besmirched this fine reputation: In the midst of putting up tiles in his home one hot day two years ago, hands still holding the level which soon became cemented to the wall, he fell fast asleep. That is the first and last time anyone ever remembers Jac Cushman leaving a job uncompleted. Or falling asleep standing up.



Industrial relations round-table

Prepared by
A. G. A. Personnel Committee

Edited by W. T. Simmons
Assistant Personnel Manager
Philadelphia Electric Company

● **How trainees feel about role playing**—Take heart if you think role playing is viewed with dread and suspicion. A recent study of 45 supervisory trainees indicates you have nothing to fear. A study was made by the Occupational Research Center of Purdue University (Lafayette, Indiana) under the direction of C. H. Lawshe, R. L. Brune, and Robert A. Bolda.

First the trainees participated in role playing. Then they were asked about the experience:

Puts you "on the spot?" 75% said no. "Kid Stuff?" 89% disagreed.

Would more in the future be a good thing? 79% said yes.

Takes a born actor to do a good job? 95% said no.

Makes a problem easier to understand? 89% said yes.

Helps you see the other person's point of view? 89% agreed.

Any supervisor would benefit? 84% agreed.

Helpful hint from Purdue staff: Avoid any reference to role playing.

● **Teach yourself management skills**—An article by Louis Cassels and Raymond L. Randall, in last October's *Nation's Business* states that four cardinal principles of executive development can be applied on a do-it-yourself basis if your company has no formal plan to help managers grow. These principles, tested by experience in major corporations, are part of the underlying philosophy of most successful executive development programs. They are:

1. Executives flourish where the climate is favorable. In rating his company, an executive should take a good look at its future prospects as well as the current working conditions.

2. Good managers are good teachers. Look around your company for a boss who is a good teacher and study his techniques.

3. Accurate diagnosis is essential to proper treatment. If you have the right kind of boss, ask him for an unsparing critique of your strengths and weaknesses. Or cooperate with others on your level in informal panel appraisals.

4. All development is self-development. Whatever is offered in courses and training programs is secondary to what you learn for yourself—by studying success where you find it.

● **New ways to build self-confidence**—Robert Mines in the June issue of *Your Life* states that people with the greatest faith in themselves most readily, and most surely, find the greatest joys in daily living, the most outstanding vocational success, the widest range of exhilarating experiences. Psychologists have come up with some new rules which can help the average person increase this belief in himself. Here are six:

1) Be as honest as possible about your errors. People who "run away" from the unflattering truth are invariably most haunted by nagging doubts and fears. 2) Learn to carry away the small stones. Tackling your mountains in one bite can intimidate even the most courageous soul. 3) When you want to compete with someone, make it yourself. 4) Give yourself time to reach any goal. Allow for interruptions or emergencies. 5) Give yourself the most attractive background possible. Gracious living adds to poise and self-confidence. 6) Seek challenging situations. Sometimes people are so bored that even trouble will make them feel better.

● **Handling problem employees**—There is no harder problem than handling problem employees. And the toughest aspect is: How do you handle the serious cases? According to Harry Levinson, Ph.D., director of the industrial division of mental health of The Menninger Foundation, Topeka, Kan., you have to be able to recognize the problem employee, then give him some form of relief, and finally refer him to professional care.

To recognize the employee who needs emotional first aid, says Dr. Levinson, be alert for three major signs:

Extremes. The ordinarily shy person becomes even more withdrawn. The hail-fellow-well-met steps up his social activities to a fever pitch.

Anxiety. If withdrawal or activity brings the employee no relief, he may become panicky, jittery, show extreme tension.

Breakdown. If still unable to cope with his anxiety, the problem employee may break down altogether, be unable to control thoughts, feelings, and actions. Thinking may become irrational, emotions inappropriate; the tidy person may become slovenly, the quiet person noisy.

Relief can be made available to the troubled employee in two ways: A supervisor may be helpful simply by letting the problem employee know how his distress is affecting his job and how much of this the company can tolerate. If the employee voluntarily brings his problem to you, you help him most by listening, says Dr. Levinson. This is more difficult than it appears, he warns. Listening means listening with no interruptions, advice, prescriptions, solutions, or pontifications. (A person who is not relieved by this technique in one or two interviews should be referred.)

Serious problems should be referred to a professional adviser. Your company physician is the best starting place. If you have none, you should acquaint yourself with a competent psychiatrist, clinical psychologist, or psychiatric social worker to whom you can turn in an emergency. In any sizable community, there are dozens of sources of help. Don't overlook the employee's own doctor.

Dr. Levinson also advises that your approach in referral should be that of "opening another door for additional help." Don't ever suggest by action or word that the employee is hopeless, or unworthy of attention.

● **Court decision**—*Supreme Court rules Draft Act does not force promotion based on merit*—The Supreme Court rules, in an action brought under Section 9 of the Universal Military Training and Service Act, that a military veteran seeking re-employment is not entitled to demand that he be assigned to a position higher than the one he formerly held if promotion to such a job depends, not simply on seniority or some other form of automatic progression, but on the "exercise of discretion on the part of the employer."

On this basis the Court affirms the action of the Tenth Court of Appeals in refusing to reinstate a federal district court suit brought by Henry T. McKinney to compel the Missouri-Kansas-Texas Railroad Co. to let him move up to a higher position. McKinney claims that by the action of the carrier he was deprived of seniority rights to which he was entitled under the Draft Act and under the collective bargaining contract between the railroad and the Brotherhood of Railway Clerks.

This is a seven-to-two decision, with Justice Frankfurter writing the opinion for the Court and Justices Black and Douglas dissenting on the merits.

MKT employees covered by the Clerks' contract are divided into three groups, according to the functions they perform, with seniority defined within each group. The agreement provides that promotion will be confined to the group with the exception that employees in Group Two will be given preference over non-employees in the assignment to positions in Group One "based upon fitness and ability."

McKinney was in Group Two when he left for military service. When re-employed he was assigned to a Group One job of assistant cashier until this job was abolished and he was returned to bill clerk in Group Two, with a corresponding reduction in pay. He claimed he should be given a seniority rating with which he could have bumped into a Group One job filled by a non-employee before he returned from the service.

Justice Frankfurter points out that Section 9 provides that a returning veteran shall not be disadvantaged by serving his country. He is required to be restored to his former position or to a position of like seniority, status, and pay. He loses no seniority by his absence from his employment for military service under the provisions of Section 9(c) of the

(Continued on page 47)

● *From steam bath to swimming pool, gas plays*

Gas is key to success of New England resort

Guests play croquet in front of Eastover's main house, a large red brick Georgian mansion

Dancing is popular, formal attire unpopular, among the young crowd that frequents Eastover

About 135 miles north of New York City, 125 miles west of Boston, there's a resort area whose mailboxes once knew only society page names—Carnegie, Mellon, Whitney, and others in the million-and-up set. The area, in and around Lenox, Mass., is still a popular resort despite the sparsity of millionaires.

Now, near the center of Lenox, there's a spot where a working girl can have a "millionaire's vacation" without pinching her pocketbook. The spot, Eastover, was once owned by a wealthy New York banker. Seven years ago it was converted into what is now considered to be New England's outstanding year-round resort.

Last summer alone more than 15,000 guests were housed, fed, and entertained at Eastover. Owners George and Ruth Bissaca, eager to give these guests the best of everything, have selected gas to help not only with the accommodations and meals, but also with entertaining.

Gas heats the large red brick Georgian mansion, and the surrounding cottages and dormitories. Gas cooks the sumptuous meals—prime ribs, sizzling steaks, homebaked rolls and pastries. While guests are dining, they can look out at the garden terrace lined with gas lights which were once on the streets of Baltimore. Gas heats the indoor swimming pool. And gas generates the steam for steam baths.

Eastover has, in all, about 80 pieces of gas equipment, including every form of service gas provides except air conditioning. On Eastover premises there are about 2,000 feet of mains and service, and 26 meter installations.

Supplier of this gas is The Berkshire Gas Co., whose main office is in the nearby town of Pittsfield.

Eastover has a large staff to maintain its facilities and assist its guests. The staff numbers about 120 in the summer, and about half that amount in the winter. Summer staff consists largely of college men, a welcome addition considering the

ol, g ployed to bring comfort to thousands of guests yearly

overwhelming majority of single young women among the guests.

An average of 350 guests a week stay at Eastover, and this number jumps to 600 on a holiday weekend. When the number passes 600, overflow is accommodated in selected private homes nearby.

Dress is informal for all activities—and activities at Eastover tempt even the most lethargic visitor. Dance enthusiasts have the opportunity to keep going eight hours a day, seven days a week. Dancing begins at three in the afternoon beside the pool, with dancers—and the band—clad in bathing suits. Before dinner, there's more dancing in the dim-lighted night club atmosphere of the basement Carriage Room. From ten to one the Tallyho recreational center is the dance room, and afterwards there's still more dancing, in the Carriage Room from one to three. Square dances are interjected for the energetic feet.

During the week, instruction for both types of dancing is given free of charge. Other free instruction includes archery, golf, tennis, swimming, and diving.

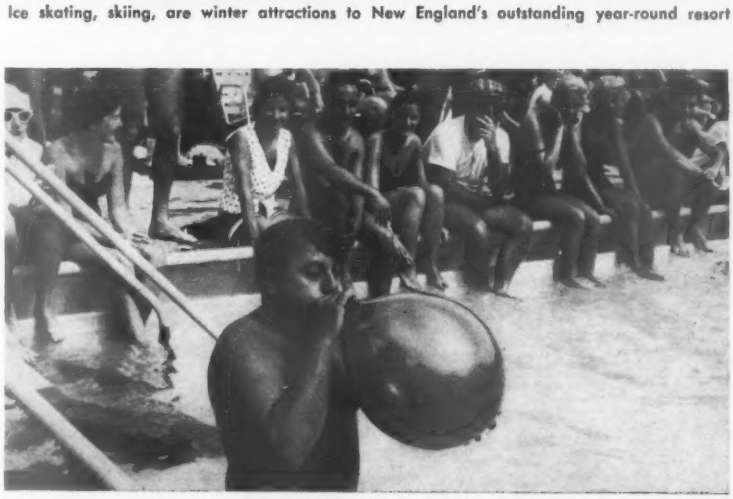
The ski tow is easily the most popular place at Eastover during the winter. In the summer, most of the guests swim in the indoor or outdoor pool, canoe in the mile-long stream, go horseback riding, play badminton, shuffleboard, softball, tennis, and volleyball.

The original owners of Eastover were not sports-minded, it appears, for when the Bissacas bought the estate neither swimming pool nor courts had been built. But there was a carriage house, containing a dozen or so tallyhos—pleasure coaches built for speed rather than comfort. The Bissacas have kept these tallyhos in condition, and every Tuesday night guests enjoy a hayride down a rocky mountain road.

Eastover is no place for hibernation. It's not the place to get a good week's rest. But it is a place for fun and enjoyment, aided winter and summer by gas.

Favorite afternoon gathering places are this outdoor pool and the gas-heated indoor pool

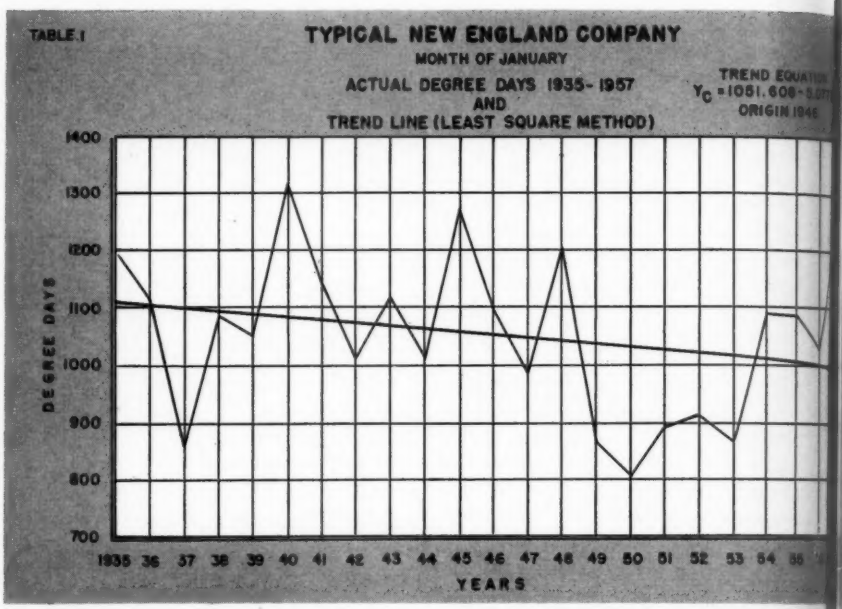
Ice skating, skiing, are winter attractions to New England's outstanding year-round resort



Guests gather around edge of the pool to cheer on participant in balloon-blowing contest

Degree days: a utility problem

Equalization reserve might serve to offset impact of weather on earnings



By HALL M. HENRY

President
New England Gas and Electric Association

Earnings of gas utilities with heavy saturations of heating loads are materially affected by variations in degree days. In seasons of extremely cold weather earnings will increase substantially. Likewise, a period of warm months or a warm year will reduce earnings abnormally.

This impact of degree day variations on gas utilities earnings has been noted by some state utility commissions. Hon. David M. Brackman, in the report of the Committee on Rates of Public Utilities at the National Association of Railroad and Utility Commissioners Convention in 1956, had this to say:

". . . . The increasing use of natural gas for heating purposes has introduced some interesting and difficult problems into gas distributing company rate schedules. It is, of course, the desire of every commission to avoid, so far as possible, applications for higher rates.

"However, the use of gas for house heating may distort distributing company earnings to the point where the company may be able to show a deficiency in earnings for a given year which would appear to require an increase in rates, whereas under different climatic conditions, this result would not have followed. A substantial proportion, sometimes 60 per cent or more of the distributing company costs, do not vary with the amount of the sendout.

"The sendout in a company having a high saturation of house heating customers depends largely upon the weather, and the net earnings of such a company may be vitally affected by variations in degree day deficiencies from year to year. This introduces an uncontrollable variant into the earnings picture, the problems presented by which have been met four square in few, if any, of the reported rate cases.

"It is notorious that wide differences do occur in the severity of winter weather. The curve of degree day deficiencies taken at the Boston Weather Bureau station since 1900 shows a low of 5,003 in 1948-1949 and a high of 6,831 in 1903-1904. The average deficiency for the last 20 years has been 5,734 degree days. The heating season 1955-1956 showed a comparable figure of 6,174 degree days.

"A similar situation has sometimes been dealt with successfully in some electric companies by the establishment

of a so-called hydro equalization reserve, to which amounts are credited in years of good water conditions and debited in periods of slack water. These normalizing entries are based on a historically normal precipitation year, and are treated as direct expense or revenue items. The result is to avoid swings in earnings in such companies from year to year as swings occur in the local precipitation curve.

"It is the thought of your committee that the state commissions might consider suggesting to gas distributing companies to study the advisability of establishing a similar reserve based on variations from the normal of annual degree day deficiencies. Naturally, such a course of action cannot very well be commenced except after a year, such as 1955, of substantial deficiency which had resulted in what might otherwise be considered as generous, if not excessive earnings. Once established, however, such a reserve might serve to equalize earnings and avoid some rate proceedings."

In a rate proceeding before the New York State Public Utilities Commission, an adjustment to earnings for normal degree days (trended degrees) was permitted. This to the writer is the only known recognition, by a public utility commission, in a rate proceeding of the impact of degree days on earnings.

In a recent survey of security analysts by Arnold LaForce, vice-president, El Paso Natural Gas Co., for the Economics Committee to determine the analysts' views on gas distribution company securities in connection with the need for accelerated high Btu gas production research, the following comment was made, as to why institutional investors and analysts think the bonds of gas companies should carry a heavier sinking fund and a higher interest rate:

"The gas industry is also more subject to the vagaries of the weather."

Other groups as well as utility people recognize and are concerned with the impact of degree day variation on gas utility earnings. A number of utility companies have shown degree day data in their financial and earnings releases and in annual reports to stockholders. Some companies have translated into cents per share the effect of warmer weather than normal on their earnings, and have released such information to the public and stockholders.

In view of the interest of the gas company operating personnel, utility commissioners, and security analysts in the effects of degree day variations from normal on net income, it seems desirable to devise a sound method for normalizing earnings for degree day variations. This paper deals with a method which has been developed by our operating, accounting and financial people.

The normalizing of earnings requires several basic decisions:

(1) What norm will be used for degree days?

(a) averages or trended degree days.

(b) 50-year, 20-year or 10-year periods for establishing either average or trended norms.

(2) How will the actual Mcf per degree day be determined?

(3) How will the calculated Mcf changes in sales be priced?

(4) How will the cost of the calculated increased or decreased sales be determined?

(5) How will the normalizing earnings be reflected on the income and operating statements?

(6) How will income tax be treated?

(7) Public Utility Commission's approval?

The normal degree day figures could be taken as being an average of 50 or more years, 20 years, 10 years or trended degree days. Based on "Trends in Annual and Peak Day Heating Degree Days," a 1956 A. G. A. bulletin, the trended degree norm has been adopted as the norm from which variation will be determined.

To normalize earnings for degree day variation, it is necessary to determine the normal degree days for each month and these must be determined for each calendar month and not for the billing cycle period. This assumes the total sendout is determined on a calendar month basis.

The normal degree days for each month are calculated using "least squares" method. Table 1 gives a typical calculation for determining normal degree days for a single month; and Figure 1 the trend line. To compute the deviation probability from the normal (straight line trend), Table 2 presents such computation.

The longest period of time for which comparable data (actual degree days) are available should be utilized in calculating normal degree days by the least squares procedure. In arriving at the actual degree days for each day, a common practice is to take the high and low temperatures for a 24-hour period and average—then deduct this from 65°F to arrive at the number of degree days. Our company has been keeping hourly readings of temperatures for over 20 years and for this reason we have taken the 24-hour average and used this to compute the number of degree days.

It is believed the 24-hour average is

TABLE 2

RELATIONSHIP OF DATA SHOWN ON TABLE-4

DAILY SENDOUT AND DEGREE DAYS

LINE TREND FROM EQUATIONS TABLE 4A

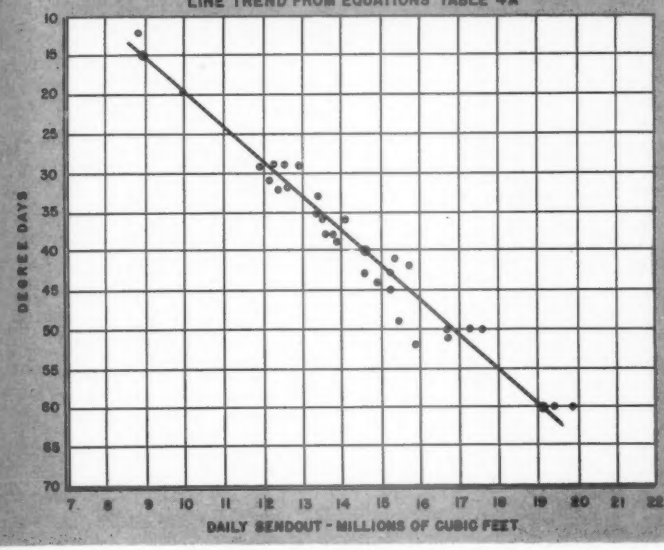


Table 1

COMPUTATION OF STRAIGHT LINE TREND OF DEGREE DAYS IN JANUARY

Year	Total Degree Days Y	X	X^2	XY	Trend Value Yc
1935	1,200	—11	121	—13,200	1,107
1936	1,114	—10	100	—11,140	1,102
1937	856	— 9	81	— 7,704	1,097
1938	1,085	— 8	64	— 8,680	1,092
1939	1,046	— 7	49	— 7,322	1,087
1940	1,313	— 6	36	— 7,878	1,082
1941	1,138	— 5	25	— 5,690	1,077
1942	1,002	— 4	16	— 4,008	1,072
1943	1,120	— 3	9	— 3,360	1,067
1944	1,006	— 2	4	— 2,012	1,062
1945	1,275	— 1	1	— 1,275	1,057
1946	1,095	0	0	0	1,052
1947	983	1	1	983	1,047
1948	1,208	2	4	2,416	1,041
1949	871	3	9	2,613	1,036
1950	806	4	16	3,224	1,031
1951	893	5	25	4,465	1,026
1952	916	6	36	5,496	1,021
1953	863	7	49	6,041	1,016
1954	1,090	8	64	8,720	1,011
1955	1,089	9	81	9,801	1,006
1956	1,026	10	100	10,260	1,001
1957	1,192	11	121	13,112	996
Total	24,187	0	1,012	— 5,138	

Normal equations

1. $a = \frac{Y}{N} = \frac{24187}{23} = 1051.608$

2. $b = \frac{XY}{X^2} = \frac{-5138}{1012} = -5.077$

Trend equation

$Yc = 1051.608 - 5.077\ (x)$

Origin 1946

Normal January 1957 $(1051.608 - 5.077\ (11)) = 996$

January 1958 $(1051.608 - 5.077\ (12)) = 991$

Table 2

COMPUTATION OF DEVIATION PROBABILITY FROM STRAIGHT LINE TREND OF DEGREE DAYS IN JANUARY

Year	Total Degree Days Y	Trend Value Yc	Deviations (Y — Yc)	Squared Deviations $(Y - Yc)^2$
1935	1,200	1,107	93	8,649
1936	1,114	1,102	12	144
1937	856	1,097	—241	58,081
1938	1,085	1,092	— 7	49
1939	1,046	1,087	— 41	1,681
1940	1,313	1,082	231	53,361
1941	1,138	1,077	61	3,721
1942	1,002	1,072	— 70	4,900
1943	1,120	1,067	53	2,809
1944	1,006	1,062	— 56	3,136
1945	1,275	1,057	218	47,524
1946	1,095	1,052	43	1,849
1947	983	1,047	— 64	4,096
1948	1,208	1,041	167	27,889
1949	871	1,036	—165	27,225
1950	806	1,031	—225	50,625
1951	893	1,026	—133	17,689
1952	916	1,021	—105	11,025
1953	863	1,016	—153	23,409
1954	1,090	1,011	79	6,241
1955	1,089	1,006	83	6,889
1956	1,026	1,001	25	625
1957	1,192	996	196	38,416
		Total		400,033

$$\text{Deviation} = \sqrt{\frac{(Y - Yc)^2}{N}} = \sqrt{\frac{400{,}033}{23}} = \sqrt{17{,}393} = 132 \pm$$

N = number of years

1958 range of probability 859 — 1123

1958 Normal (Trend line) 991

more realistic than using the high and low temperatures for a day to measure the actual degree days. The difference in annual degree days by the two methods were most pronounced in 1957, when it was shown that using the 24-hour average temperature the annual degree days were 4,670, whereas using the high and low, these came to 5,281 or a difference of 611 or 13 per cent. Of course, if the 24-hour average temperature is not available, then it will be necessary to use the high and low temperatures for degree day determinations.

For New England there is a great variation in the monthly normal degree days calculated by "least squares" method and a straight 20-year or 10-year average. The A. G. A. study clearly indicates that the least squares procedure for determining normal degree days yields normals closer to actually experienced data than straight averaging. Table 3 shows the monthly variation in normal degree days by the least squares method and straight averaging 10 and 20 years.

It will be noted from Table 3 that the degree days by months are totaled to arrive at calendar year figures. This is because our company's fiscal year is on a calendar year basis. Companies that do or may adopt a fiscal year dating at the end or the beginning of a heating season would place an entire, integrated, single heating season within the year.

Once the monthly normal degree days are determined, the next step in normalizing earnings is to determine sendout in Mcf per degree day for the month to be normalized. This is calculated by the application of the least squares method to daily sendouts and degree days. The data and formula used are shown in Tables 4 and 4a as is also a typical calculation to determine the Mcf per degree day called heating per degree day or abbreviated to H/D. The curve expressing the relationship is shown in Figure 2 which is a straight line or first degree equation ($Y = a + bx$).

For some companies and in certain months, particularly spring and fall, the relationship of sendout and degree days may be best represented by the use of a second degree equation ($Y = a + bx + cx^2$). The Brooklyn Union Gas Co. makes similar computations for sendout-temperature relationships using both equations.

Normal degree days for the month is subtracted from the actual degree days to arrive at degree day, excess or deficiency, then the degree day, excess or

deficiency, is multiplied by the H/D to arrive at the gross Mcf sendout, excess or deficiency. This gross Mcf sendout, excess or deficiency, is then adjusted to a *net Mcf sendout,* excess or deficiency, by subtracting a percentage for unaccounted for or line loss. For this subtraction, we apply the annual unaccounted for percentage of the previous year conforming with the unaccounted percentage used in our unbilled calculations. The net Mcf sendout, excess or deficiency, is then equivalent to Mcf sales, excess or deficiency. The words "excess or deficiency" as used mean "excess" or plus from normal and "deficiency" minus from normal.

One of the difficult problems in normalizing earnings for degree day changes is the proper pricing of the gas. Our company has been normalizing earnings monthly for unbilled sales and we have been using the last step billed of the heating rates to arrive at the price for unbilled gas. In normalizing earnings for degree days we use the same pricing method.

The cost of gas will vary depending on whether the changes in degree days result in the company having to produce more or less peak shaving gas, and the kind and type of peaking gas supplied. For these reasons, the local plant operating personnel is charged with the responsibility of determining the type of gas supply (excess or deficiency) and the types and volumes are listed separately. Likewise, the "cost" of the several types of gas (excess or deficiency) is determined by the local plant personnel.

The basic principles used for costing the gas are:

(1) If natural gas was or would have been used (if on firm contract) the commodity cost is used. If purchased economic replacement gas or purchased winter peaking gas is used or would have been used, then the price paid for this gas is the cost of this source of supply.

(2) LP-Gas cost is the number of gallons used or would have been used in producing this type of gas times the unit cost per gallon.

(3) Oil gas cost that would or would not have been used because of changes in degree day from normal is determined as follows:

(a) The processing costs are calculated based on the previous year's actual experience and this is determined in December of each year. Only those processing costs which are the result of making oil gas are used, that is, standby labor is not included in processing costs.

(b) The costs for generator fuel (F) and make oil (O) together with process and blower steam less the steam credit (S) less the tar (T) and Light oil (L) produced. These costs termed F.O.T.S.L. are the sum of the costs per Mcf of the oil used for heating and make plus the process and blower steam—less the tar, light oil or steam credits.

Table 3

COMPARISON TREND DEGREE DAYS WITH 20-YEAR AND 10-YEAR AVERAGES

		Normal Trend Line				Year 1958	
	Degree Day Actual 1957	Year 1957	Year 1958	Last 20-year Average	Last 10-year Average	Percent Decrease From 20-year Average	Percent Decrease From 10-year Average
January	1,192	996	991	1,051	995	5.71%	0.04%
February	822	850	842	916	870	8.08%	3.22%
March	795	817	816	830	825	1.69%	1.09%
April	474	481	475	533	502	10.88%	5.38%
May	199	240	237	261	254	9.20%	6.69%
June	15	53	53	47	44	12.77%*	20.45%*
July	—	—	—	—	—	—	—
August	—	—	—	—	—	—	—
September	62	66	63	88	85	28.41%	25.88%
October	334	263	257	308	294	16.56%	12.59%
November	507	545	540	585	557	7.69%	3.05%
December	743	852	845	919	860	8.05%	1.74%
Total	5,143	5,163	5,119	5,538	5,286	7.57%	3.16%

* Increase

Table 4

DATA AND TYPICAL CALCULATIONS NECESSARY TO APPLY FORMULAS TO DETERMINE MCF PER DEGREE DAY OR H/D IN JANUARY

Date	Actual Degree Days X	X — 40*	X^2	Actual Sendout MMCF Y	XY
2	50	10	100	17.6	176.0
3	41	1	1	15.3	15.3
4	29	—11	121	12.9	—141.9
5	43	3	9	14.6	43.8
6	38	— 2	4	13.6	— 27.2
7	36	— 4	16	13.5	— 54.0
8	32	— 8	64	12.4	— 99.2
9	29	—11	121	11.9	—130.9
10	44	4	16	14.9	59.6
11	43	3	9	15.2	45.6
12	31	— 9	81	12.1	—108.9
13	49	9	81	15.4	138.6
14	60	20	400	19.4	388.0
15	60	20	400	19.9	398.0
16	50	10	100	17.3	173.0
17	50	10	100	16.7	167.0
18	49	9	81	16.7	150.3
19	45	5	25	15.2	76.0
20	29	—11	121	12.5	—137.5
21	20	—20	400	9.9	—198.0
22	12	—28	784	8.8	—246.4
23	36	— 4	16	14.1	— 56.4
24	42	2	4	15.7	31.4
25	38	— 2	4	13.8	— 27.6
26	35	— 5	25	13.4	— 67.0
27	32	— 8	64	12.6	—100.8
28	33	— 7	49	13.4	— 93.8
29	39	— 1	1	13.9	— 13.9
30	35	— 5	25	13.4	— 67.0
31	29	—11	121	12.3	—135.3
Total	1,159	—41	3,343	428.4	156.8
Jan. 1	33				
31 days	1,192				

* Used to simplify arithmetic.

Note: Jan. 1, New Year's Day, not included in calculation of Mcf/dd or H/D.

(c) The unit cost per Mcf for oil gas is the sum of (a + b).

(4) The total cost of gas is the sum of the costs of the various types of gas (a) as used, if the degree days were in excess of normal or (b) which would have been used to supply gas from a below normal degree day sendout to a normal degree day sendout. Be sure that the cost (total) is based on the gross Mcf sendout (excess or deficiency) or you will not be providing for the unaccounted for gas.

The gross income is the difference between the calculated gross revenue (excess or deficiency) or revenue effect and the calculated cost of gas (excess or deficiency).

The gross income is adjusted for federal income taxes and state franchise taxes to arrive at Net Income effects.

To best summarize the method for normalizing earnings for degree day variations developed by our operating, accounting and financial people, reference is made to Table 5.

Table 5 is a monthly summary form on which are itemized typical computations delineated in the preceding paragraphs producing the net income effect on degree day variation from normal or the impact of degree days on earnings.

It is proposed that a balance sheet account under "other reserves" be created, bearing the title "degree day equalization reserve." There are methods of creating this account: (1) by a starting appropriation from surplus, or (2) by waiting until the cumulative monthly effect of degree day variation from normal on net income results in a net income excess; then, starting the reserve with this excess by a credit to reserve and debit to net income. We recommend the latter method.

If a company desired to start normalizing earnings beginning with their fiscal year, say Jan. 1, and the monthly effect of degree day variation from normal was a deficiency for the first month, second month, etc., the company may carry this deficiency in memo form and cumulated until an excess occurs; then start the reserve in the month the cumulation total is an excess.

Once a "degree day equalization reserve" is created (by a credit to the reserve of a net income excess from degree day variation) a subsequent net income deficiency in excess of the balance in the reserve would be debited to the reserve in an amount equal to the reserve account and the balance again carried in memo form until the reserve could be re-established by a net income excess resulting from a monthly effect of degree day variation from normal.

The usual monthly routine would be credit to the reserve a net income excess resulting from effect of degree day variation from normal and to debit the reserve when there is a monthly deficiency from effect of degree day variation from normal.

The income statement may be prepared in the usual manner down to "net income"; then adjust for degree day variation.

(Continued on page 34)

Table 4a

APPLYING DATA FROM TABLE 4 TO LEAST SQUARE FORMULA

First degree equation $Y = a + bx$

Applied equation #1

$Y =$ (days in month) $a +$ (degree days) b
$428.4 = 30\ a + (-41)\ b$

Applied equation #2

$XY =$ (degree days) $a + X^2\ b$
$156.8 = -41a + 3343\ b$

Solving for $b = .225825 \times 1000 = 226$ Mcf/dd or H/D

Solving for $a = 14.58886$

Substitute in equation #1

$Y = a + bx$
$Y = 30\ (14.58886) + (.225825)\ (-41)$
$Y = 437.6580 - 9.2588$
$Y = 428.4$ sendout MMcf (checks with Table)

Trend Line Figure 2

X = 40 degree day	14.59 Mcf
X = 15	8.94
X = 60	19.11

Table 5

EFFECT OF DEGREE DAY VARIATION FROM NORMAL ON NET INCOME IN JANUARY

Actual Degree Days (Calendar Month)				1,192
Normal Degree Days (Trend Line)				996
Degree Day Excess or (Deficiency)				196
Mcf per Degree Day or H/D				226
Gross Mcf Sendout Excess or (Deficiency) (196 × 226)				44,296
Less—Estimated Line Loss				1,772
Net Mcf Sendout Excess or (Deficiency)				42,524
Revenue Effect @ $1.40 per Mcf (42,524 × $1.40)				$59,534
Cost of Gas: Type of Gas Supply	MCF	Cost per Mcf	Total	
General Service—Firm (F-1)	18,920	.332	6,281	
Economy Replacement				
Emergency Service				
Winter Peaking				
Peak Service—General				
Peak Shaving—Oil Gas				
Predetermined Processing Cost	25,376	.22	5,583	
FOTSL (Use Mcf and above line)		.68	17,256	
Peak Shaving—LP Gas				
Gals. @ $				
Total Cost	44,296			29,120
Gross Income Before Taxes				30,414
Tax Offset @ %				16,500
Net Income Excess (Credit to Reserve)				$13,914
Net Income Deficiency (Debit to Reserve)				$(—)

E. C. Baumann stresses importance of understanding people at safety meeting in Atlantic City, one of a series of courses held this year

Supervisors praise A.G.A. safety course

The gas industry, through the American Gas Association, this year put into action a safety program believed to be the most ambitious, positive approach to accident prevention training ever undertaken in the United States by an entire industry.

The program's main feature has been a series of accident prevention courses held throughout the year at which supervisory personnel have been given training by R. N. Papich, A. G. A. safety consultant, and Accident Prevention Committee safety experts.

How effective has this training course been? Just how do the nation's gas industry safety experts rate this program?

A survey of the 77 companies which already have participated indicates that the program is a whooping success. An example of what the some 400 supervisors who have received the training to date think of this new approach can be summed up by the remark made by one gas man who attended the Tampa, Fla., training sessions: "I don't see how this course can be improved. It is comprehensive and clearly put."

And a supervisor at the Indianapolis meeting made this statement: "No suggestions for improvement. The training is excellently presented and complete in scope."

Mr. Papich has participated in every training session, but he credits the program's success to others who have guided and implemented it. He points to A. G. A. President-nominee J. Theodore Wolfe as the man who has been behind the program, "Accident Prevention Through Informed Supervision," from the start. Mr. Wolfe, president of Baltimore Gas and Electric Co., and chairman of the A. G. A. Executive Safety Committee, wrote a personal letter to every chief executive in every high accident frequency state in the nation asking that each take advantage of the training offered gas industry people in their area.

Mr. Papich also credits E. C. Baumann, chairman of the Accident Prevention Committee, "for having had the vision first, then the understanding and active support of every member of the committee to make this undertaking possible."

Many companies are helping to make the program a success. As an example, before the year is over Lyle Conway, safety director, United Gas Corp., and Stanley Owens, director of safety, Transcontinental Gas Pipeline Corp., will instruct in eight different courses. Marvin Travis of Northern Natural Gas Co. will teach in six and Charles Williams of the Gas Service Co. and G. V. Atkinson of Trunkline Gas Co. will teach five and four courses respectively.

Mr. Papich emphasizes that this course is not the answer to all the gas industry's accident prevention problems. "All we have been able to do is to expose the supervisors to the basic facts of accident prevention," he said. "What they do about it when they return to their companies will be the proof of the pudding."

What takes place at a typical training program? The meetings usually are opened on a light vein to point out the guinine sense of apathy in some quarters toward accident prevention. There are no dull speeches, no detailed reports. Instructors know that many "students" will have the attitude that "there's not much to talk about at a safety conference, and certainly not two days' worth."

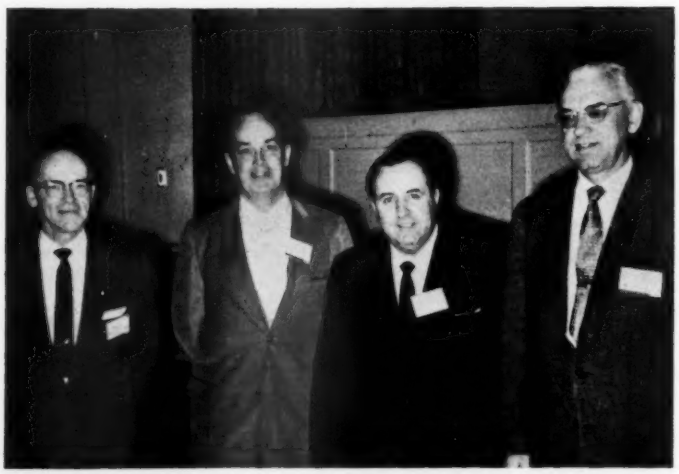
This negative thinking is changed in short order, however, as supervisors are exposed to several hundred feet of slide film, some 15 to 20 pounds of safety literature, and some rather startling figures on accidents.

Once the preliminaries are over, a cartoon slide film is shown. It's the story of the original Mr. Undertaker who gloomily tells of the many gas industry accidental deaths that have occurred during the past ten years.

After this eye-opener, the instructors get down to business. Each subject is covered by a short outline, a slide film, a sound movie, or a set of flip charts. During some sessions, a unique flannel board is utilized to impress upon the audience the main points of the subject. The program is designed to create en-

E. S. Beaumont, safety director, The Peoples Gas Light and Coke Co., who taught in the first course, registers as the 1,000th supervisor, in the Chicago course

The faces above show the kind of interest and attention received at every safety course given this year. This photo was taken during the Houston meeting



The teaching staff at the Richmond, Va., course (l. to r.): Charles Cummings, R. E. McEldowney, R. N. Papich, and R. H. Coleman. Courses are for two days

thusiasm and a genuine interest through understanding.

The instructors stress two basic principles of accident prevention—investigation and follow-up. Fact finding and analysis to categorize accidents are emphasized through a film which illustrates that seemingly unrelated accidents should be broken down into groups. This makes it possible to keep records that are usable and understandable. Accurate records enable the safety man to follow through in making the necessary corrections which can prevent such mishaps in the future.

The importance of knowing how to communicate with employees and to understand their thinking is explained at each course. In addition, it is pointed out that a safety program can be successful only when it has the full support of management, and by the same token, the supervisor must assume the responsibility in organizing a good safety program.

Here is the accident prevention training program schedule for the remainder of the year:

OCTOBER

Atlanta, Georgia

Stanley Owens—Organizer
R. L. Conway—Instructor

Little Rock, Arkansas

G. V. Atkinson—Organizer
W. Vance Smith, R. L. Conway } Instructors

NOVEMBER

Boston, Massachusetts

A. L. Dowden—Organizer
Charles O'Reilly, Clinton Pendleton, John McMaster } Instructors

What they say—

● . . . (from Raleigh, N. C.): knowing as little as I did about accident prevention, I have been taught a great deal at this meeting. I could not improve on the course.

● . . . (from Richmond, Va.): if possible, the course should be given to all levels of supervision. It was an eye-opener to me and has my wholehearted support.

● . . . (from Minneapolis, Minn.): I thought as I listened to the instructor that it was a shame that each of my supervisors and foremen could not also have attended.

The Columbia Gas System, Inc., has adopted training programs to meet the needs of an expanding gas system

Up the ladder at Columbia Gas

By OHMER ULLERY

Assistant Treasurer
Columbia Gas System Service Corp.

One of the most important phases of a successful organization is the training of junior personnel for supervisory and executive jobs.

The Columbia Gas System, Inc., has adopted training programs which are considered well organized, flexible and tailored to meet the needs of a rapidly expanding natural gas system. These include programs in the fields of engineering, operating, accounting and treasury, each of which is tailored to fit the individual needs of the company, job or individual.

This paper will deal with one of such programs, namely, the accounting and treasury training program, which is intended to create a pool of trained personnel from which any System company may draw in order to fill vacancies which may ultimately lead to key positions within its treasury or other departments.

The System consists of the parent company, The Columbia Gas System, Inc., a subsidiary service company, Columbia Gas System Service Corporation, both with headquarters in New York City; eleven natural gas operating companies, divided into three operating groups with headquarters in Charleston, W. Va., Columbus, Ohio, and Pittsburgh, Pa.; an oil company in Columbus, and a petro-chemical company in Siloam, Ky.

The parent company is a holding company. The Service Corporation furnishes engineering, accounting and other specialized services to the operating companies.

The System operates over a seven-state area; it has approximately 1,400,000 customers, 138,000 stockholders, 12,000 employees, and a plant investment approaching $1 billion.

In this paper, the author describes the accounting and treasury training program

To cope with the many and diversified accounting and financial problems encountered, it is of the utmost importance that each operating group, as well as the parent and service companies, develop in their treasury organizations personnel with a broad knowledge of the gas industry and specialized training in the System's fiscal operations.

The rapid expansion of the System in recent years, together with promotions and retirements, indicated the necessity for adopting a comprehensive and continuous training program which would insure the availability of trained personnel when needed. With these objectives in mind, our System treasury training program was launched and is now an important element in our organizational planning. The program is a long-range one. It is not intended to manufacture supervisors or executives overnight.

In accordance with the System's policy of promoting from within whenever possible, trainees to date have been selected from regular company employees who have had a minimum of one year of service. However, the plan also includes provision for the recruitment of college graduates to fill quotas, if required.

The importance of proper selection cannot be overemphasized. Potential candidates are recommended in the first instance by supervisory employees or departmental heads, and are then meticulously screened by officials of the treasury and employee relations departments before final selection. Required qualifications include an above-average record of performance during employment, an above-average potential for leadership, and an over-all aptitude for future advancement as measured by intelligence,

capability and personality.

The duration of the training period is approximately 70 weeks. This period is broken down into specified periods of time to be spent in each section of the operating and treasury departments as follows:

Part I, covering a period of two weeks, is devoted to a general indoctrination and orientation of the entire class of trainees in System organization, operations, policies, accounting and operating manuals, etc. These are discussed with the trainees by key members of management in classroom-type sessions. Following this, each trainee is assigned to one of the operating groups for detailed training.

Part II consists of 15 weeks of training in field accounting and operations, i.e., engineering and planning, production, underground storage, transmission, distribution, local and district offices, employee relations, business promotion, etc. The trainees spend most of this time in the field observing operations and receiving detailed instructions and explanations from operating supervisory personnel. The time allotments in each department or section range from one to four weeks.

Part III consists of 49 weeks of intensive training in all phases of accounting and treasury operations. This includes general books and records; cash, plant, payroll, machine, land and lease and gas measurement accounting; budgets, statistics, taxes, insurance, audits, etc. Time allotments range from one week in the cash book section to eight weeks in the machine accounting or tabulating sections.

Part IV consists of four weeks of training in service and parent company operations and functions, visits to other operating groups, etc. As in Part I, key members of management review System policies with the trainees during this period.

While 70 weeks represents the maximum training period, the schedule for each trainee is tailored to fit his requirements. For example, a trainee experienced in the work of a given section would by-pass that section. Similarly, the program can be tailored to fit the individual needs of employees of other than treasury, such as legal or some other department.

General supervision of the trainees is exercised by a System coordinator. During the period the trainee is on group premises, his training is coordinated by the System and group coordinator and group training director. Immediate supervision of the trainee is delegated to the supervisor or department head to whom he has been temporarily assigned. The responsibility for counseling, advising and encouraging trainees rests principally with the System coordinator, assisted by the group coordinators and group training directors.

Mere exposure to the work of each department is not enough. At the conclusion of training in each section and department, and before moving on to his next training phase, the trainee is required to prepare a written report dealing with the function, scope and activities of the unit. Narrative style is specified, and the report must be reasonably comprehensive, yet not so lengthy as to include too many minor details.

The reports are reviewed by the supervisors or department heads with the trainees for completeness and accuracy, then duplicated and distributed to those administering the program.

Purpose is twofold

The written report is an important part of the training program and serves a twofold purpose. First, it invites creative thinking on the part of the trainee by requiring him to carefully gather, edit, and assemble in logical sequence data for inclusion in a formal report. Second, it provides management with a measure of his progress and the degree to which he has grasped the purpose and functions of the section or department which is the subject of the report.

The supervisor or department head prepares an "appraisal and development" form for each trainee after the completion of training in his department. The primary purpose of this form is to aid the trainee in his growth and development by an appraisal of all phases of his performance, followed through with constructive discussions and guidance. Such matters as knowledge of work, initiative, application, quality of performance on assignments, personality, dependability and leadership are individually graded. The supervisor also is required to comment on the trainee's ability to learn, his judgment, attitude, strong and weak characteristics, areas in which improvement might be achieved, etc. These reports are carefully reviewed and followed up by the personnel in charge of administering the program.

The discussions and guidance described in the preceding paragraph are intended to assist the trainee in developing into a capable, well-adjusted member of the organizational team. We have found that most trainees want to know how they are getting along—to talk frankly with someone in authority about their progress. Such discussions, properly conducted, build better understanding between company and trainee. This has been found to be particularly true if the trainee is told about his strong as well as weak points.

Placement in permanent positions is made when the trainees have satisfactorily completed the training program. In such placements, the talents and preferences of trainees are considered along with System needs. Periodic appraisal reports are subsequently made with respect to all graduates to determine progress, detect areas requiring improvement or further development, and to insure against the trained employee becoming a "forgotten man."

The program is administered by a five-member System Committee, consisting of the System treasurer, the System director of employee relations and the treasurer of each of the operating groups. This committee establishes policies and procedures, determines the quota of trainees for each class, is responsible for their placement upon graduation, and the following-up of their progress in ensuing years.

The Columbia Gas System accounting and treasury training program is designed to equip promising employees with the tools necessary for their further development. The considerable recognition and prestige which the program presently enjoys throughout the System may be attributed in large degree to the active and enthusiastic support of the System's top level officers, as well as to the sincere support given by the supervisory and other personnel with whom trainees come in contact.

The importance of these two types of acceptance, plus the continuing enthusiasm of the trainees themselves during their entire training period, cannot be overstated. Only a program so designed and administered as to insure the continuing cooperation of all levels of the organizational team may reasonably be expected to achieve the long-range objectives of its sponsors.

J. H. WIMBERLY, *CHAIRMAN* · MARVIN CHANDLER, *VICE-CHAIRMAN*

What's new in major medical plans

Medical care insurance is the newest, fastest growing and fastest changing entry in the group insurance field. The original Blue Cross Plans provided hospital bed and board and partial hospital expense benefits for limited periods. They were followed by Blue Shield Plans providing limited surgical benefits. When the commercial carriers entered the field, they offered more flexible, individually tailored plans embodying the factor of experience rating.

The need for more adequate protection to cover more serious and prolonged illness has resulted in much experimentation and it is now possible to arrange very extensive coverage on a variety of bases—in fact, almost anything for which the purchaser is willing to pay.

Blue Cross-Blue Shield in recent years have greatly increased the flexibility of their plans. They now offer a wide selection of coverage combinations and on some large accounts will tailor-make a plan and give some form of experience rating.

There have been two opposite trends in the development of more substantial medical care plans. One trend, resulting from the pressure exerted by an important segment of organized labor, has been toward practically unlimited hospital benefits plus very substantial surgical and medical-in-hospital benefits. Consequently, an increasing number of plans are providing full semi-private hospital bed and board benefits for 365 days with unlimited hospital extras, surgical schedules with $250 to $300 maximum and benefits of $4 or $5 per doctor's hospital visit. The objective of the group favoring this approach is for a further extension of this first dollar coverage into other forms of medical care, including doctor's office and home calls and other medical services.

To many people this approach is fundamentally unsound since it eliminates practically all interest on the part of insured persons in the cost of medical care and leads to many abuses. The runaway possibilities inherent in this type of plan, particularly where the employer pays all or a large part of the cost, are obvious.

In view of the need for better protection against the costs of serious and prolonged illness but the need also for reasonable safeguards against abuse, experiments with the so-called major medical or catastrophic illness coverages began about ten years ago. There has probably never been a new development in group insurance that has grown and expanded as rapidly as this type and its more recent elaboration, the so-called comprehensive medical plan. Latest information indicates that this trend is still strong and it is estimated that some 13 million persons are covered under such plans.

Major medical is designed to supplement the coverage provided under a basic plan of in-hospital and surgical benefits. In addition, it generally provides benefits for most medical costs not covered under the basic plan. At the outset the commercial carriers, who were then the only underwriters of this coverage, would only accept this business from groups on which they were writing the basic plan. In recent years such carriers have been more willing to superimpose major medical coverage on basic Blue Cross-Blue Shield plans. The latter organizations have recently also developed group major medical coverages.

Earlier major medical plans provided that benefits would not be payable until covered medical expenses exceeded some substantial amount such as $300 or $500. However, benefit payments under the basic plan, as well as out-of-pocket costs, could be used in meeting this qualification. This was not satisfactory for several reasons. A person who was hospitalized might begin receiving major medical benefits without any prior out-of-pocket expense. Another person with equally large medical bills but no early hospitalization might be out-of-pocket the entire amount of the deductible.

In addition, it was initially thought that contributory major medical plans could not be sold to rank and file employees and the early plans were mainly restricted to supervisory personnel. Subsequent successful efforts to extend the coverage to all employee levels required that realistically smaller out-of-pocket amounts be applicable to lower paid elements in the group.

In recent years the trend has been toward corridor-type deductibles. These impose an absolute out-of-pocket amount on every individual, generally variable according to some earnings classification. In the lower-paid classifications, deductibles of $150 and even $100 are now frequently encountered.

A few years ago the so-called comprehensive plan made its appearance and has been enjoying a fairly rapid expansion. This approach in its purest form eliminates the basic plan benefits entirely. It provides for a modest deductible, either per illness or per year and after this is satisfied, pays 75 per cent or 80 per cent of all covered medical costs up to some stated maximum. The deductible will generally be reimposed, either each year or after some stated period of time. Certain additional limitations may also be included, such as a maximum private hospital room rate, restrictions on psychiatric care, and similar items.

(This report of the Subcommittee on Group Insurance was given at a meeting of the A. G. A. Insurance Committee during the General Management Section Conference.)

In the largest plan of this type established to date and in a number of smaller ones, the deductible is split. For example, in the General Electric Plan, an annual per person deductible of $25 applies to hospital, surgical, and X-ray bills while a $50 deductible applies to all other medical expenses. The maximum combined deductible in any year, however, is $50. After the deductible is established this plan pays the next $225 of hospital, surgical and X-ray benefits in full plus 85 per cent of the excess. On other expenses, 75 per cent of the excess is paid.

Proponents of this type of plan contend that it incorporates certain inherent cost control factors. They feel that the hospital deductible will eliminate many unnecessary one or two day admissions. The deductible is also designed to eliminate the myriad of small medical claims, particularly the $5, $10 and $15 surgical charges which add up to a great deal of money and administrative expense. The coinsurance factor on both types of expenses is designed to keep the individual aware of medical costs and interested in keeping them on a necessary and reasonable basis.

Unfortunately, employees have become accustomed to first dollar coverage on all hospital and surgical expenses and are apt to resist efforts to incorporate a deductible on these items. As a result, many of the existing comprehensive plans have nullified this feature by incorporating what amounts to basic plan benefits in providing full first dollar hospital expense benefits up to some maximum such as $500 or $1,000 and up to $250 or $300 on surgical fees before either the deductible or coinsurance factors are brought into play. This variant of the comprehensive approach will be more expensive than the base plan plus major medical approach since the inherent cost control factors previously mentioned are lacking.

When major medical was first introduced it was thought that it could not be sold to rank and file employees, particularly those represented by unions. This has been proven a fallacy. Similarly, many people seem to feel that the true comprehensive plan cannot be sold to these employees.

The experience of General Electric shows that this is not necessarily so. Adequate preparation in this case produced union agreement to make two plans available to the employees, one comprehensive as outlined above, the other basic benefits plus major medical. Thorough explanation to all employees of both plans resulted in overwhelming acceptance of the comprehensive program recommended by the employer. Recent figures indicate that 99 per cent of the employees are enrolled in this plan as against less than 1 per cent in the major medical plan.

This plan with its broad basis for experience—over 750,000 persons are covered—offers strong evidence of the importance of the deductible on hospital and surgical expenses. The countrywide rate of hospital admissions per 1,000 employees under the comprehensive plan is 91 as against 119 under the basic plus major medical plan and as against 116 per 1,000 in 1954 under the conventional hospital-surgical plan in effect then.

A serious problem is the cost of coverage for older and retired employees and their dependent spouses. Blue Cross-Blue Shield group plans automatically provide conversion policies when such persons leave active employment, generally for the same premium paid by younger persons for individual policies. The conversion privilege is not automatically available under commercial company group contracts and, when specifically arranged for, converted contracts are priced several times higher than are comparable benefits on the active group.

Among this older group, not only is the incidence of illness much greater but the per case cost is radically greater, around 2½ times on hospital costs and around 1½ times on surgical fees. These facts alone show the greatly increased need of such persons for medical coverage. Unfortunately, under commercial carrier group contracts, this increased need occurs after the termination of such coverage, unless special provision has been made.

In recent years, there has been a strong trend to provide benefits in some form—either by conversion or continuation in the group—to retire employees and their dependents. The utility industry has been a leader in this development.

Employers often prefer to provide these benefits by continuation under the group rather than by conversion contracts. The latter have not provided a satisfactory solution of the problem. Because of age and expense factors the premium, even for limited benefits, is necessarily high. Since it is expected that this will result in many of the healthier retired people with sharply reduced incomes failing to convert, a substantial loading will be included to offset the effect of adverse selection of risk. In short, this entire approach is self-defeating.

Where coverage is continued under the group, it is generally limited in some manner. In many instances only hospital and surgical benefits are provided, sometimes for lesser periods and amounts than for active participants. Frequently the hospital and surgical benefits are the same but are limited to one maximum claim under each during any one year. Occasionally a lifetime dollar limit, such as $500 or $1,000, is placed on the payment of benefits.

In the last few years a number of companies which continue substantial amounts of group life insurance after retirement have permitted a limited amount of this to be advanced on account of medical expense.

Major medical coverage, because of its somewhat experimental nature and the cost potential involved on older persons, is almost invariably terminated. In a few instances, some limited lifetime amount such as $1,000 has been continued in addition to the basic benefits. In some plans, eligibility for whatever benefits are provided after retirement will depend on some service qualification such as 15, 20 or 25 years.

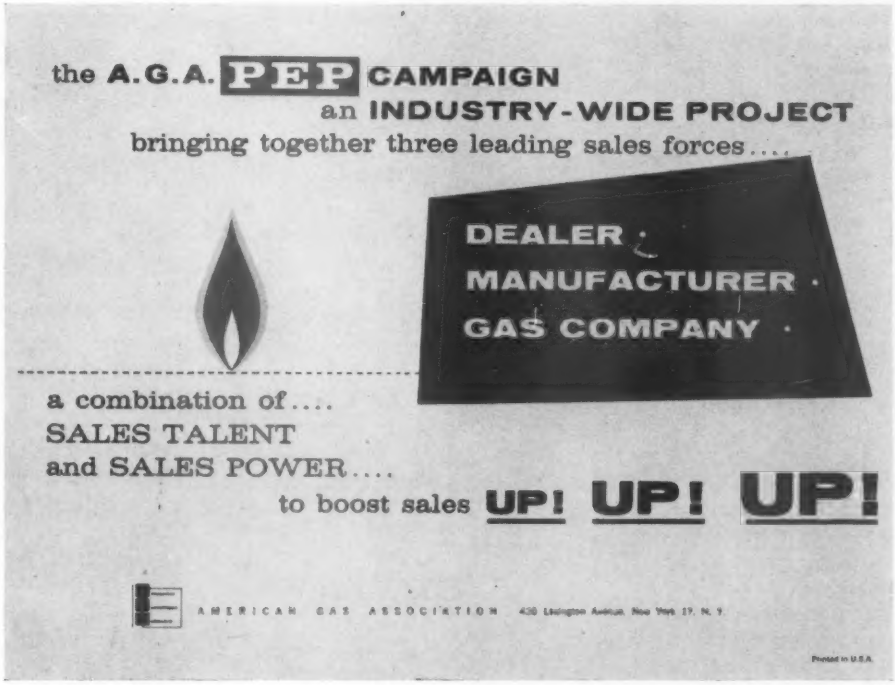
The cost factor is a serious one, because the employer generally continues to contribute, and quite frequently, contributes a higher percentage of the substantially increased premium than on active employees.

In nearly all instances, death of the retired employee terminates coverage for the spouse. However, because of the great need and the feeling of responsibility toward the spouse of an employee who may have rendered long service, a few employers have recently experimented with extending limited benefits to older widows under the group plan, since here again and for the same reasons, conversion contracts are not realistic.

While the cost involved in providing coverage to retired persons is a

(Continued on page 35)

The big PEP bandwagon is rolling



The most comprehensive PEP portfolio ever issued goes to participants. Informative cover is above.

The gas industry's leading sales forces joined hands this month to launch an all-out offensive aimed toward boosting sales of commercial cooking equipment.

The big push is the annual PEP campaign which brings together the top efforts of dealers, manufacturers and gas companies. Off to a good start this month, the drive will continue through November.

Interest in the PEP (Performance, Economy, Profit) campaign has grown each year since the idea originated. This year, member companies received the most comprehensive portfolio ever issued. It will guide participants in the campaign and acquaint them with the promotional, selling and advertising materials that are available.

The portfolio is arranged in convenient file format made up of five sections: planning guide, promotional material, demonstrations for volume feeding operators, examples of successful programs, and contests.

The components of a successful PEP campaign are set forth in such a manner that companies can follow the pattern wholly or in any modified way to suit local conditions. Every gas company, regardless of size, sales policy, manpower, or budget can use all or part of the materials available. Detailed suggestions from initial meetings through the "kick off" dinner, sales education meetings, and demonstrations are clearly outlined. For conduct of the campaign, direct mail selling tools are described together with a suggested planning calendar and report forms to keep track of progress.

Other sales helps are suggested not only for the gas company but to actively assist dealers and dealer salesmen to get greater results from their efforts.

A wide variety of promotional material that provides flexibility of use for participating companies in any degree desired is included. Of major interest

are the new "Reply-O-Letter" mailing pieces specifically for ranges, ovens, counter equipment and fryers. These specially prepared pieces are reasonable in cost and one of the ideal methods of reaching all prospects and getting action for dealers. Two plans are offered for the handling of these personalized mailing pieces. One is that everything is taken care of by A. G. A. The other is that companies can take care of their own mailings.

"Sellagrams" are also suggested as attention getters. These are designed for mailing to equipment dealers and their salesmen to keep up their interest and spur them on to greater efforts.

More promotional material is available this year than ever before. Included are sections entitled: "What's the Score"; the "Alfonso Story"; "Thrifty Tips"; and "Where Food Is Finest" film. Manufacturers' literature is also included and the sheets on specialty items will be useful to both gas company and dealer salesmen. Attention is directed to the new underfired gas broilers, a new coffee maker featuring a revolutionary principle of brewing, superior roasting and baking ovens, together with high-input deep fat fryers are gas appliances having appeal for the restaurant operator to increase his profits.

Demonstrations are important and perform a valuable service. There are manufacturers of bakers supplies and equipment manufacturers anxious to conduct demonstrations under gas company sponsorship. The demonstrations are given for volume feeding operators and it is advisable to invite dealers and dealer salesmen as well as prospects to these demonstrations.

The services of two experts on restaurant management can be booked for lectures during the duration of the campaign. They are H. L. "Billy" Wortz and George Wenzel. Arrangements can be made for the two-day course of instruction by either or both men.

Two contests have been designed for use in the campaign. They are:

1. A. G. A. National Restaurant Equipment Dealer Achievement Award for restaurant equipment dealers. The award is an engraved plaque.

2. An achievement award is sponsored by the Hotel, Restaurant and Commercial Gas Equipment Division of the Gas Appliance Manufacturers Association for all merchandising and non-merchandising gas companies in the U. S. who registered in the campaign. There will be 12 awards of engraved plaques, four in each division, plus three cash awards of $200 each.

Official contest rules, together with full instructions and entry blanks, are in the "contest" folder.

There is also an incentive plan for local salesman contests with the awards to be selected from a catalog of merchandise prizes. These contests can be conducted locally by gas companies or equipment dealers.

Many gas companies in the PEP campaign of last year developed their own promotional programs. Two programs of gas utilities and one by a dealer are reviewed for the guidance of those companies who wish to supplement the use of 1958 campaign materials.

The 1957 PEP Campaign produced three winners of the GAMA Achievement Award:

Class I—over 100,000 meters, Oklahoma Natural Gas Company, Tulsa, Okla.

Class II—25,000 to 100,000 meters, Piedmont Natural Gas Company, Charlotte, N. C.

Class III—under 25,000 meters, Chattanooga Gas Company, Chattanooga, Tenn.

The Oklahoma Natural Gas Co. enlisted the cooperation of all gas utilities in the state to spur equipment sales through dealers. The efforts of this company resulted in a 144 per cent sales increase.

The entire promotional campaign of the company was set forth in an elaborate brochure submitted under the GAMA contest rules. Their participation was detailed step by step together with excellent photographs of the various activities, sales meetings, demonstrations and individuals who were responsible for the many phases of the promotion.

Starting with an outline of the "Overall Development Program," the several following sections of the brochure were entitled:

Sales and Service Facilities
Dealer Participation
Direct Mail Selling Efforts
Sales Education Meetings
Demonstrations
PEP Campaign Operations Report
PEP Campaign Sales Report.

In each of the above brochure sections there were copies of all letters and mailing pieces used throughout the campaign. Many of these were used as supplied by A. G. A. Others were modified to meet the situation in Oklahoma and others were developed by the company to meet specific needs.

It was pointed out how dealer cooperation was secured and how manufacturers representatives helped in coordinating the activities of the Oklahoma utilities and dealers to develop prospects and eventually close sales.

The ultimate results of the campaign far exceeded the original goals. In the sales report, the following sales of gas-fired items were recorded:

Ranges	146
Broilers	38
Bake Ovens	50
Fryers	119
Griddles	58
Toasters	5
Steamers	6
Warm Food Tables	66
Steam Kettles	7
	495

This was an increase of 272 items over the campaign of last year.

The entire program of Oklahoma Natural Gas Company proved that if a sincere effort is made to take advantage of the features of a national campaign, results will be obtained with the assurance that a profitable gas load has been added to the lines of the participating gas utility.

Jane Powell joins A.G.A. Monthly staff

With this issue, Margaret A. Bloch of the A. G. A. MONTHLY resigns to wed Neil Eisen and reside in Cincinnati, Ohio. Appointed to succeed her as news editor is Jane Powell of New York City. Mrs. Powell comes to the American Gas Association from Ebel-Doctorow Publications where she has been an associate editor of two trade publications. Mrs. Powell holds a Bachelor of Arts degree in Journalism from New York University. She was employed by *The New York Times* as the university correspondent while a student. Miss Bloch has been with A. G. A. for nearly four years, starting as news editor of the MONTHLY and editor of the *A. G. A. Proceedings*, and rising to assistant editor of the MONTHLY and editor of the A. G. A. staff publication, *Staff Stuff*.

All-gas house saves owner $9,960

Billboards such as the above were strategically located to help advertise the all-gas house of savings

Pittsburgh's home building industry is still reeling from a $100,000 advertising promotional bomb dropped in April by the Natural Gas Companies of Pittsburgh, comprising the Equitable Gas Co., The Manufacturers Light & Heat Co., and The Peoples Natural Gas Co.

Called the "all-gas house of savings," the house is reported to be loaded with $9,996 of real money savings through the use of gas appliances during a 20-year mortgage period.

The summer-long campaign was launched in April at a night club with 1,700 builders and their wives in attendance. In two consecutive evenings, they were wined, dined and entertained by a rapid-paced song and dance spectacular which told the "all-gas house of savings" story in lively Broadway fashion. Under New York producer Max Richard, the Broadway stars pointed out the savings of gas as compared with electricity for the period of a 20-year mortgage: for cooking, $568.80; for water heating, $957.60; for clothes drying, $544.80; and for home heating, $7,925. These savings, computed on the basis of local rates for both gas and electricity and monthly fuel requirements in the Pittsburgh area, drove across a selling point which builders were quick to grasp. In this day of the buyer's market, with builders getting back to the selling of features, this kind of approach made sense.

The big advertising campaign that followed the kick-off kept these selling points in constant view. The campaign consisted of newspaper ads in the three Pittsburgh dailies and 33 other major dailies. A series of 80 inch, 60 inch and 50 inch follow-up ads were run in the Pittsburgh papers and 44 other dailies and weeklies. A grand total of 12,000 column inches, or 65 full pages of ads on the "all-gas house of savings," saturated the area.

Two hundred television commercials on six stations and 400 radio commercials on nine stations added force to the promotion. A total of 600 impressions on these two media alone radiated through the district during the promotional period.

Heavy traffic areas were dominated with 24 sheet poster billboards; 101 boards were utilized to sell the $9,996.00 "AGHOS" theme. Consumer handout folders, cooperative advertising, demonstrator personnel, promotional material, and a phantom shopper program for sales people completed the package.

The reaction of home builders was summed-up by Harold Sampson, president of the Sampson Brothers, Inc. which claims to have more housing units in dollar volume than any other company in western Pennsylvania.

"The gas industry in the Pittsburgh area has scooped the electric companies this year," he said. "At this time of recession, when people are looking for savings, the impact of this all-gas house of savings campaign has been terrific, because it has been presented to the home-buying public in terms of dollars and cents savings. That, plus the big kick-off meeting for the builders, makes this a very effective promotion."

With the phantom or mystery buyer on the job, real estate salesmen and builders have become extremely conscious of the all-gas house of savings story. The salesman who tells the story to prospective home-buyers finds himself in possession of a cash award. Although the award does not exceed 20 dollars, its appeal to sales personnel would seem to be indicated by the fact that to date over 50 per cent have come up with the right answers. On May 22, with the campaign less than five weeks old, builders and sales personnel had won over $450.

The method of phantom shopping is not new, but according to the Willmark Research Corp. of New York, this is the first time that this method has been used with the home-building industry.

A man and wife team approach the sales person in the all-gas model home and ask questions about the house. If the proper explanation of the all-gas house of savings is given voluntarily, and if point-of sale display material is seen both inside and outside the model home, the salesman is sent a $10 check. If he also offers the prospect a brochure and goes into specific details on the gas appliances, he receives an additional $10 check from the gas companies. Since most home buyers viewing a model home are couples, there is no way of knowing the identity of the phantom shoppers. As a result, salesmen who are familiar with the campaign pitch, tell the gas story freely and with enthusiasm to all visitors.

To qualify as participants in the campaign, builders must include a built-in gas range with a burner-with-a-brain, a "family rated" gas water heater and an automatic gas furnace in their model homes. They must identify the model home as an "all-gas house of savings" and they are expected to hand out promotion material to visitors.

In addition, they are expected to display signs, banners, displays and stickers both inside and outside the model homes. The builders' dollars are also expected to go into the campaign. Builders, cooperating on a 50-50 basis, must refer to their model home as the "all-gas house of savings," in their ads, and are furnished with drop-in mats for this purpose.

The effectiveness of the campaign can be attested to by the fact that over one hundred builders have signed for separate model home promotions. Many former "all electric" builders have joined the parade to gas. "The parade of homes," annual Home Builders Association of Pittsburgh promotion, is displaying a majority of "AGHOS" models; North Suburban Home Builders Association's "Home-O-Rama" has 21 "all-gas house of savings" models in a dispaly of 25 homes.

This campaign has earned the respect of builders and the envy of its electric competition. In essence, it is a new concept in selling, backed by a complete advertising and promotion program. Designed by Ketchum, MacLeod & Grove, Inc., for the five natural gas companies in Pennsylvania, Ohio and West Virginia, it is aimed at both the builders and the public.

It benefits the public by pointing out the total savings that can be realized over the lifespan of a mortgage through exclusive use of gas—for cooking, water heating, clothes drying, and home heating. It not only shows the owner of an all-gas home how he can save $9,996 over 20 years; it goes one step further. If the home buyer should purchase U. S. Savings Bonds with his gas savings during the 20-year mortgage period, the interest at three and a quarter percent would boost his total savings to over $13,750.

Thus the campaign helps the public. But how does it help the builder?

Primarily, it helps the builder by emphasizing the positive side of a picture that has been receiving negative treatment. At a time when home-buying could become the forgotten dream of the American public because of a stubborn recession wave, the campaign refers to home buying and savings in the same breath. With home builder associations emphasizing the many plus values of the modern home in order to justify the price, the gas industry says "buy a gas house and save money, not a little money, but big money—as much as $9,996 in twenty years!" This form of attack may not lower the down-payment but it lessens buyer resistance by injecting positive thinking.

Its secondary help to the builder has been through the power of suggestion. The campaign does not stop at telling the buyer what he saves by buying the "all-gas house of savings." It suggests what the buyer can do with the money he saves. Like the woman who gives herself home permanents so she can turn around and spend the money on hats, the gas companies suggest that the buyer, having acquired superior service at a great savings, turn around and buy that extra

(Continued on page 47)

Visitors to the all-gas house of savings walked past old-fashioned decorative gas post lanterns. The gas lanterns provide a soft, peaceful glow at night

Only research

(Continued from page 10)

appears highly desirable.

Direct conversion of chemical and heat energy to electricity: Recent advances in our fundamental knowledge regarding physical chemistry and electricity is reawakening interest in a topic whose origins go back to the year 1801 —the direct conversion of chemical energy to electricity. One promising means for accomplishing this is through the medium of the fuel cell, a primary battery which is capable of continuous operation by oxidation of a fuel.

Fig. 1 shows a schematic diagram of a fuel cell using hydrogen gas as fuel. The principle of operation in simplified terms is as follows: Hydrogen gas enters one of the hollow electrodes, which is both porous and electrically conductive, and diffuses into the potassium hydroxide electrolyte. Water is then formed and an electron is freed electrochemically. This electron enters the electrical system, passes through the external load circuit, and returns to the cell at a second electrode, similar in construction to the first and having oxygen gas supplied to it. At the oxygen electrode, the reaction between the oxygen and electrolyte accepts the electron. A fuel cell designed to "burn" methane would operate along analogous principles.

The great attraction of the fuel cell, aside from the elusive simplicity of its operating scheme, lies in the fact that it does not suffer from the basic efficiency limitation which the Carnot cycle imposes on conventional heat engines. Experimental fuel cells have operated with efficiencies as high as 80 per cent, a dramatic contrast to the 30-35 per cent efficiency of a superior central generating station. Also, the basic cell size is small, about one cubic centimeter being required for each watt output; a box 2.5" on a side will generate over one kilowatt.

It is unnecessary to dwell on the tremendous economic impact which a successful methane-burning fuel cell would have on the gas industry. Some see it as an electrical generating plant capable of being installed in homes, commercial buildings, and industrial plans. Others visualize its use in large, central generating stations, operating with efficiencies now classed as visionary. Still others look to the portable power source market, with fuel cells operating lawn mowers, and even automobiles. All agree it would be a major factor in assuring the gas industry of an expanding future.

The fly in the ointment of this rosy picture is that current fundamental research knowledge is not yet adequate to permit the design of fuel cells which avoid "poisoning," i.e., a gradual loss of efficiency and final breakdown. The poisoning is due to insidious side reactions whose details are little understood. Here is where a patient period of basic research could well blossom into a technological breakthrough for the gas industry.

The fuel cell is, however, but one promising direction in the search for efficient and economical ways for converting the chemical energy of fuels into electricity. Recently, Profs. George N. Hatsopoulos and Joseph Kaye, both of the Massachusetts Institute of Technology, reported on their preliminary work with a "thermo electron" engine. In essence, they use a simple diode configuration, in which electrons are "boiled" or emitted from a hot cathode, to be condensed on a colder anode. To quote from their report: "This device . . . is a true heat engine in the thermodynamic sense, since heat is supplied at a high temperature to the cathode to maintain it at a temperature T_1, and heat is rejected from the anode to maintain it at a lower temperature T_2. The working fluid undergoing a cyclic process is the electron gas which, of course, also constitutes the useful electric current when the cathode and anode are connected externally through a load."

Fig. 2 shows a typical set of experimental results obtained by Hatsopoulos and Kaye. Note that a thermal efficiency of around 13 per cent was attained, despite the preliminary state of their model design. They foresee an approximate doubling of this efficiency in the near future. Estimates of the ratio of power output to volume run in the neighborhood of 10-20 kw./cu. ft.

We thus see that our technology is on the verge of revolutionary advances in the area of energy conversion. I feel that the gas industry should be a strong contender in the race to develop and make use of this new knowledge. I foresee the day, hopefully, when the gas industry is spending more for research and development in this one area alone than it is now spending on its entire research and development effort.

Manufactured gas and petrochemistry: While natural gas has become the overriding source of supply for marketable fuel gas, the future may bring substantial change to this picture. Already, in some areas of the country, the advantages of economical manufactured gas are becoming evident. Even in the case of natural gas utilization, a tightening economic picture requires that careful attention be given to the extraction of profitable cuts from the stream before the fuel product is delivered to the user.

In the gas-producing plant of the future, the emphasis will be on the completely integrated petrochemical process. In stockyard terms, this means making the best use of everything except the animal's squeal.

As insurance against all possible future eventualities, the industry should be developing a strong research team in the areas of gas treatment, gas production, and petrochemistry. Otherwise, instead of controlling the future, we will be controlled by it.

In essence, what is needed is a patient and consistent investment in research. It is insufficient to rely on chance to produce the new technological ideas essential to the future stability of the industry. We must adopt the Chinese custom of paying the doctor when we are healthy, so that he can save us when illness threatens. At present, we are paying the doctor a paltry sum; I wonder how well he will serve us when a crisis approaches?

Production, pipeline, and automation research: The continuing rise in the cost of delivered gas is probably one of the most unsettling problems currently facing the industry. In order to curb this upward trend, additional emphasis must be placed on achieving every possible improvement in operating economy. Let me mention some areas where added developmental effort is needed.

Exploration and production costs have a direct relationship to the price of gas. The point can be made that research and development along these lines falls within the province of the major producers and the suppliers of exploration and production equipment and services. Problems relating to the secondary recovery of spent gas fields will be of increasing concern in the future, however, and their solution is a direct industry responsibility.

Improving the efficiency of pipeline and distribution systems, both to reduce costs and increase capacity, must also be

pursued aggressively. Both the A. G. A. and the S. G. A. are sponsoring programs with this aim, but more can be done.

One great source of future benefit will come from the introduction of improved automation techniques in pipeline dispatching and distribution operations. The magnitude and complexity of the overall problem precludes reliance on equipment manufacturers to supply optimum solutions. The industry itself must be the prime mover in causing automation to work for its benefit.

Air conditioning: To conclude this listing of fields in need of more research attention, let me briefly review the air conditioning situation.

Several years ago, A. G. A. embarked on a program aimed at injecting new ideas into the design of gas-fired air conditioning systems. This effort has already produced rewarding results. Several manufacturers are now pressing forward with developments based on A. G. A. projects, while others have received encouragement to develop their own ideas by virtue of this activity.

At Southwest Research Institute, we are proud of our contribution to this program. Fig. 3 shows a test set-up for a pilot model of a domestic-size air conditioning unit employing an advanced absorption cycle. The unit operates with a Coefficient of Performance near 0.8, automatically vents fixed gas if it forms within the system, and promises to show attractive cost features.

A. G. A. has indicated the belief that the first phase of their over-all effort is now nearing an end. The wheels are greased; the industry development machine is in motion. The concern of A. G. A. must now turn to more fundamental questions relating to the use of gas as the energy source for air conditioning. Can magneto-thermodynamics be used as the basis for a novel and advantageous heat-driven system? What other new ideas can be shifted from the realm of pure science into the applied research laboratory?

This, in truth, is the kind of long-range thinking which will keep the gas industry strong.

In closing, let me leave you with this thought: Support your research and development staffs. Give them adequate funds, the authority to use them, and the responsibility of using them well. You will be giving the industry the gift of an ever-renewing future. The indistinct horizon will become clear, and the dynamic changes of the coming years will be your allies, and not storm clouds in a threatening sky.

Degree days

(Continued from page 22)

Net income	X
Adjustment for degree day equalization reserve (dr or cr)	Y
Normalized net income	Z

The actual federal or state income taxes of a company would be reported in the same manner as if no adjustment was made to normalize earnings. However, provision would be made as previously indicated for federal and state tax effects in determining the normalized net income.

In Massachusetts, it is recognized the establishing of a reserve for normalizing earnings giving effect to degree day variations from normal would require approval by the Department of Public Utilities of the Commonwealth. A prec-

Table 6

EFFECT ON NET INCOME OF DEGREE DAY VARIATION FROM NORMAL YEAR 1957

	Total	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Actual degree days	4,670	1,211	781	708	384	138	5	—	—	31	240	461	711
Normal degree days (Trend line)	5,062	1,046	851	793	413	196	32	—	—	63	244	547	877
Degree day excess or deficiency*	392*	165	70*	85*	29*	58*	27*	—	—	32*	4*	86*	166*
MCF per degree day or H/D		213	224	224	199	240	451	—	—	345	273	261	268
Gross MCF sendout excess or deficiency*	110,508*	35,145	15,680*	19,040*	5,770*	13,920*	12,177*	—	—	11,040*	1,092*	22,446*	44,488*
Less-Estimated line loss	4,814*	1,405	627*	760*	230*	557*	487*	—	—	497*	49*	1,010*	2,002*
Net MCF sendout excess or deficiency*	105,694*	33,740	15,053*	18,280*	5,540*	13,363*	11,690*	—	—	10,543*	1,043*	21,436*	42,486*
Revenue effect at rate used in pricing net MCF sendout excess or deficiency*	$131,200*	$41,500	$18,500*	$22,500*	$6,800*	$16,400*	$14,400*	—	—	$13,000*	$1,300*	$26,400*	$53,400*
Cost of gas	35,800*	11,100	4,900*	6,000*	1,800*	4,400*	3,800*	—	—	3,500*	300*	7,400*	14,800*
Gross income before taxes	95,400*	30,400	13,600*	16,500*	5,000*	12,000*	10,600*	—	—	9,500*	1,000*	19,000*	38,600*
Tax offset:													
F.I.T.	49,600*	15,800	7,100*	8,600*	2,600*	6,200*	5,500*	—	—	4,900*	500*	9,900*	20,100*
State Franchise	2,100*	700	300*	400*	100*	300*	200*	—	—	200*	—	400*	900*
Total tax offset	51,700*	16,500	7,400*	9,000*	2,700*	6,500*	5,700*	—	—	5,100*	500*	10,300*	21,000*
Net income excess or deficiency*	$ 43,700*	$13,900	$ 6,200*	$ 7,500*	$2,300*	$ 5,500*	$ 4,900*	—	—	$ 4,400*	$ 500*	$ 8,700*	$17,600*

The above figures indicate that net income of this company would have increased $43,700 if a degree day reserve was operative.

* Denotes red figure.

edent has been established in Massachusetts in connection with a hydro-equalization reserve for an electric company. The Massachusetts Commission (DPU) has suggested that gas companies might well consider advisability of establishing a degree day excess or (deficiency) reserve. Reference is made to the report of Chairman David M. Brackman quoted in the beginning of this paper.

One gas company computes per share earnings differentials arising from abnormal temperatures for use in connection with informal discussions of earnings with representatives of the commission and for internal use in connection with appraisals of financial results. The figures are not reflected on the books of the company and, therefore, no commission approval is necessary.

Some of the advantages in "booking" normalized earnings compared with "non-booking" are as follows:

1. The commission receives truer statements of profit and losses without need of explanations.
2. Analysts can more readily appraise the earning power of the company.
3. Investors are better advised.
4. The facts and figures are on record for management review to determine controllable and non-controllable items of operations.

The actual monthly and annual impact of degree day variations from normal, for a New England company for the year 1957 is shown in Table 6. By reference to this table it will be noted that the month of January reflected an excess degree days from normal producing excess earnings of $13,900 and the remaining months of the year a deficiency in degree days and consequent deficiency in earnings. On an annual basis, the net income of this company reflected a deficiency of 392 degree days and resultant net income deficiency of $43,700.

For this same company, we have computed the effect on net income from degree day variation from normal for the previous year 1956, a year of subnormal weather. The following tabulation summarizes the results for the two years 1957 and 1956:

	1957	1956
Actual Degree Days	4,670	5,567
Normal degree days (trend line)	5,062	5,110
Degree day excess or (deficiency)	(392)	457
Net Income excess or (deficiency)	($43,700)	$46,198

If a degree day reserve had been active for the two years, the following normalization of earnings would have taken place:

	Reserve Account	Adjustment on Net Income
Year 1956	+$46,198	—$46,198 for normal dd
1957	— 43,700	+ 43,700 for normal dd
Balance in Reserve	$ 2,498	

This is what is meant by normalizing earnings for degree day variations from normal.

It is too early to say to what extent the present procedure as herein outlined should be modified. There has already occurred certain modification which should be considered. Such as eliminating any adjustment for months of June and September. Others will no doubt occur to the reader and to the company as we gain experience.

In acknowledgement, the author wishes to thank the following individuals of the New England Gas and Electric System operating, accounting and financial organizations: W. P. Earley, M. P. Griffith, B. A. Johnson, C. L. MacLauchlin, H. C. Moore, Jr., H. A. Norris, J. C. Stoneman and J. L. Turnan. Also, Daniel Parson, Director, A. G. A. Bureau of Statistics, for his suggestions.

Major medical

(Continued from page 28)

serious problem, failure to provide reasonable benefits at bearable premiums may become an even greater problem.

Legislation is pending which proposes to add medical benefits to the old age insurance benefits now provided under the Social Security Act. Like the disability insurance benefits, this legislation may be passed at some future date if the problem does not appear to be approaching substantial solution through private means.

In New York State, two legislative efforts in this field are pending. One proposes that hospital and surgical benefits be added to the Disability Benefits Law, somewhat along the lines already in effect in California. Other legislation proposes that all groups must make a conversion contract available to all terminated employees and their dependents on a non-cancellable basis, with benefits not less than those on active employees and at a premium not in excess of that applicable to active employees.

One of the greatest difficulties in finding a satisfactory solution to the problem of continuing adequate medical benefits on over-age employees is the question of how the heavy costs shall be met. At a time when their incomes are generally materially reduced, it seems impractical to require these older persons to pay the high premiums involved for the level of benefits that would be necessary in order to provide satisfactory coverage. At the same time many employers, in spite of a sympathetic attitude, will properly feel that it is not economically feasible for them to finance this heavy and generally growing cost beyond some reasonable level.

The funding of the cost of such benefits during the active employment years is, of course, a logical theoretical solution. The inherent danger here is that the government may feel that only it can supply facilities for accomplishing this in a practical manner.

There are indications of some experimentation by employers and commercial carriers seeking a means of solving this problem satisfactorily through private means. The establishment of a form of deposit administration fund supported by contributions from either the employees during their active service or the employer, or both, seems feasible. This fund would be used to provide either the entire benefits for retired employees or certain supplementary benefits and might be a satisfactory solution in some cases.

Industry news

Southern Counties Gas to build new headquarters

GROUND-BREAKING ceremonies were held June 4 for a $2,268,950 headquarters building of Southern Counties Gas Co. of California at Eighth and Flower Sts. in downtown Los Angeles. The 13-story structure will go up on a 50-by-150 foot lot on the southeast corner of Eighth and Flower, and is scheduled for completion by next Aug. 1. It will house, in addition to Southern Counties Gas Co., offices of two affiliates, Southern California Gas Co. and Pacific Lighting Gas Supply Co.; and local executive offices of the parent organization, Pacific Lighting Corp. The building will have an exterior of blue porcelain enamel panels, and floor-to-ceiling glass on the Eighth St. side; and solid panels of white quartz mosaic on the Flower St. side. The ground floor will be a sheer glass wall, broken by steel piers faced with white ceramic tile.

ASHAE refutes claims that gas appliances raise cooling costs

THROUGH the efforts of the A. G. A. Utilization Bureau, two important additions have been made in the cooling load chapter of the 1958 Heating, Ventilating and Air-Conditioning Guide published by the American Society of Heating and Air-Conditioning Engineers.

For many years electric companies have been telling commercial food service operators that the use of gas rather than electric cooking equipment would add greatly to the air conditioning load of the dining area. It was claimed that this increased load would require larger and more expensive air conditioning equipment and add greatly to the operating cost. The force of this argument has frequently resulted in the sale of electric cooking appliances because the claim could not be conclusively refuted by reference to some authoritative source.

The additions in the 1958 Guide, which can be effectively used to combat these false claims, appear on page 329 and read as follows:

"In the case of gas burning appliances where the heat of combustion adds considerably to the total heat output, it is believed that a well designed hood will remove more than 50 per cent of the heat generated at the appliance. . . .

"Heat gains from cooking appliances, motors, lights and people are not considered in cooling load calculations if the appliances are located in a separate kitchen that is not part of the conditioned area."

The first sentence indicates that the exhaust hood efficiency is greater with gas appliances than the 50 per cent figure recommended for other fuels. The basis for this is that the extra heat input for gas appliances over that required for similar electric appliances is due to lower thermal efficiency and that the added heat therefore is contained in the combustion products. In turn, these combustion products are exhausted at the top of the high shelf which, in many installations, is only about 12 inches below the exhaust hood. For this reason the combustion products should be totally vented through the exhaust system and none of the added heat will escape to the kitchen. While the added statement in the Guide does not make a specific recommendation for hood efficiency with gas appliances, it does admit that it is probably greater than the old 50 per cent figure.

At the present time a research project titled "Kitchen Ventilation in Commercial Eating Establishments" is in progress at the A. G. A. Laboratories. As a result of this investigation it is hoped that a definite value for hood efficiency can be recommended to the ASHAE.

The second sentence clearly states that the heat gained from cooking appliances is not considered where the appliances are not located in the conditioned area. This statement will quickly and positively refute any false claim that gas appliances will add to the cooling load even though the kitchen itself is not air conditioned.

Fred MacMurray, June Haver, to star in industry promotion

Top-notch Christmas promotion becomes a reality as the contract is signed in the MacMurray home in Brentwood, Calif. Present at signing are (l. to r.): seated—Norval Jennings, A. G. A. director of promotion and advertising; John Shaw, president of Western Lithograph Co.; Fred MacMurray and June Haver; standing—Ralph Rosenberg, Lennen & Newell advertising agency; H. D. Nicholson, A. G. A.

THIS CHRISTMAS, two famed Hollywood personalities will tell the American public to "Make This the Merriest Christmas Ever—Give Her a Gas Appliance." Via television, radio, film, and printed media, Fred MacMurray and June Haver will sell gas and gas appliances.

The popular Hollywood couple have already completed a series of six filmed commercials to be shown on "Playhouse 90," plus a dealer film, 60-second radio commercials, and special publicity photographs.

National magazine advertising for the White Christmas promotion will consist of ten different advertisements to be placed in seven magazines, for a total of 35 million sales messages, 12 million more than last year. The advertising schedule is as follows: November—*Good Housekeeping, Ladies' Home Journal, McCall's, American Home;* December—*Ladies' Home Journal, Parents', American Home, Better Homes & Gardens,* and *Newsweek.*

For the commercials, Warner Brothers Studios has constructed a strikingly modern kitchen set.

Fred MacMurray and June Haver will emphasize domestic appliances including the built-in gas range with automatic top burner heat control, Ice-Maker gas refrigerator, gas water heater, gas clothes dryer, and gas air conditioning.

Professional football players, local coaches team up to sell gas lights

PROFESSIONAL football players and athletic coaches have formed a new sales team for promoting the gas industry's fast-selling new appliance—gas lights.

The team was formed in mid-1958, and is scoring decisive sales gains wherever it appears as a ready-made sales force for gas companies.

The professional football players, all backfieldmen, are Lamar McHan, Chicago Cardinals; Lewis Carpenter, Cleveland Browns; and Henry Moore, Baltimore Colts. All are former college stars at the University of Arkansas. The sales team fills the gap for many companies which do not merchandise any gas equipment.

The players work in the off-season for the manufacturer, Arkla Air Conditioning Corp. The coaches work for a newly-formed independent sales organization known as Southern Sports Service of Little Rock, Ark.

They are home-based, year-round salesmen for gas lights.

The gridmen have been used effectively in special gas light sales campaigns promoted by several Southern utilities. They appeared at the campaign kickoff, lending prestige of their football reputations to the drive. This is particularly rewarding for publicity purposes. One south Arkansas newspaper daily devoted three full sports columns to the men.

The players call on prospects supplied by the companies, and also join company employees, company salesmen, and the coaches in door-to-door solicitation.

They carry gas lights on a handy chain, and have complete "pitch kits" ready if the prospect wants to know more about the lights. They emphasize two main points: Cost and convenience. The lights use little gas—continuous burning equals approximately the year-round consumption of a gas range. Many companies allow purchase on the installment plan, with a small amount added to the gas bill. As for convenience, the light glows softly and attracts less bugs. It is being used primarily outdoors, but several indoor installations have been made.

An athletic coach who signs up to sell is required to have a minimum of three sales agents working for him.

This arrangement now affords a force of more than 500 in Louisiana and Mississippi alone, and the number is growing as the program expands.

A prime asset of the coach program is that the men are well-known, respected citizens in their communities, with many local contacts. They are given exclusive right to gas light sales in their communities, which makes the program more attractive to them.

Southern Sports Service contracts its services with local gas companies and receives a fixed commission on sales of lights. The gas company usually handles installation of the lights, which is included in the total sales price.

The new, practical gas appliance is being sold now at a rate high enough to keep production at Arkla alone at more than a thousand a day. As sales continue to boom, that figure, as well as production at other plants, can go no other way than up.

The salesroom is anywhere and everywhere when these three professional football players sell gas lights. Making their sales pitch to Miss Sally Miller—Miss Arkansas 1958—are (l. to r.): Lewis Carpenter, Henry Moore, and Lamar McHan

Affiliates of Peoples Gas System merge into parent company

THE MERGER of Peoples Water and Gas Co. of North Miami and The Tampa Gas Co. into Peoples Gas System, Inc., has been completed. The new company, Florida's largest gas utility, has assets of $24,956,843. It operates manufactured gas distribution properties in Dade, Broward and Hillsborough counties that serve more than 100,000 customers. It will convert to natural gas when the pipeline being built by The Houston Corp. from Texas and Louisiana gas fields is completed next year.

Before the merger, the North Miami and Tampa companies were affiliates of Peoples Gas System. Two bottled gas companies, Peoples Gas Co. and The Tampa Bottled Gas Co., previously owned by the affiliated companies, will continue as wholly owned subsidiaries of Peoples Gas System.

Four employees of the former affiliated companies have been promoted to posts in the new corporation. They are: J. H. O'Brien, former treasurer of Peoples Water and Gas, to comptroller and assistant secretary; R. G. Morrison Jr., former assistant treasurer, The Tampa Gas Co., to assistant treasurer and assistant secretary; J. K. Chastain, former chief accountant, Peoples Water and Gas Co., to assistant treasurer and assistant secretary; and J. L. Folger, former chief accountant, The Tampa Gas Co., to fiscal administrative assistant. Members of the executive staff of the former management company were elected to the same posts in the new corporation.

Philip C. Crowen continues as president and chief administrative officer, Ivan E. Ball as financial vice-president, John T. Bills as vice-president—corporate relations, George V. Justin as vice-president—operations, and Andrew B. Young as secretary-treasurer. John W. Owen, former manager of The Tampa Gas Co., becomes manager, West Coast Division.

"The merger," Mr. Crowen reports, "is the final step we had contemplated to prepare this company for natural gas. It will streamline our operations and simplify the financing of some $15 million of new funds which we plan to spend to convert our system to natural gas and expand it to make this new fuel available to more people in Florida."

Eighteenth annual home service awards to be presented at convention

WHEN the five gas utility home service winners are announced at A. G. A.'s annual convention, it will mark 18 years of continuous recognition by *McCall's* magazine to gas utility home service women who "have made the greatest contribution to the advancement of modern homemaking by promoting interest in, and better use of, gas and modern appliances during the year."

There are approximately 1,000 women working in the home economics departments of gas utilities, fostering better cusomer relations between consumer and utility through a wide variety of activities, who are eligible for the A. G. A. Home Service Achievement Award sponsored by *McCall's*. Sixty-four home service women, representing 41 different companies, have won awards.

Leading the field of winning companies, The Ohio Fuel Gas Co. has taken the award seven times. Following closely is The Manufacturers' Light & Heat Co., with six wins. Lone Star Gas Co., Minneapolis Gas Light Co., Oklahoma Natural Gas Co., and Southern Counties Gas Co., each have had four wins.

The A. G. A. Home Service Achievement Award consists of a $200 check for the individual winner and a bronze plaque with the name of the winner's company inscribed on it. Winners are selected by means of a national competition conducted by A. G. A. and *McCall's*.

Michigan Gas Association elects new officers

L. L. Perry

LEONARD L. PERRY, vice-president and general manager of Michigan Gas and Electric Co., was elected president of the Michigan Gas Association June 30 at the group's annual meeting at Mackinac Island.

J. B. Simpson, vice-president of Consumers Power Co., was named vice-president of the association. Elected to his fifth term as secretary was Milton G. Kendrick, administrative assistant to the vice-president in charge of sales of Michigan Consolidated Gas Co.

Arthur Crawley, Flint division manager of Consumers Power Co., was elected to the board of directors. George E. Ludwig, Muskegon district manager of Michigan Consolidated Gas Co., the immediate past president, was named ex-officio board member.

Mr. Perry began his utility career in 1923 as a laborer for the Pacific Power and Light Co. in Pasco, Wash., and served with several Midwestern utilities before taking his present post six years ago.

Franchise change

THE Ohio Valley Gas Co., Columbus, has taken over service of natural gas in Ironton, New Boston, and 11 other communities in Lawrence and Scioto Counties. Rates remain the same. The 12,000 customers in the area were previously served by United Fuel Gas Co., Charleston, W. Va. Both companies are subsidiaries of The Columbia Gas System, Inc. Ohio Valley has the same general management as The Ohio Fuel Gas Co. In addition to Ironton and New Boston, the communities involved are Bradrick, Burlington, Chesapeake, Coal Grove, Corryville, Hanging Rock, Glendale, Proctorville, South Point, Lambro, and Wheelersburg.

U. S. Chamber distributes leaflets about secondary boycott

THE U. S. Chamber of Commerce, in its campaign to call attention to the secondary boycott as an unfair labor practice, is distributing a leaflet entitled "Answers to Your Questions About Secondary Boycotts." The eight questions and answers contained in the leaflets are as follows:

1. How does a secondary boycott affect me?

If you are an employer, a secondary boycott can cost you loss of sales, or can even ruin your business.

If you are an employee, a secondary boycott can put you out of work.

If you are a consumer, a secondary boycott can raise the price of goods you buy, or take goods you want off the market.

2. Just what is a secondary boycott?

It is a labor union tactic which a union uses: (1) to force unwilling employees to join the union or to change their union affiliation; also (2) to win labor disputes without regard to injury to neutral third parties.

Here is an actual case of how a union used a secondary boycott in an attempt to force an employer to support the union's position in a dispute against another employer:

The union had a dispute with the manufacturer of a certain shower curtain. The union then asked a department store to stop selling the curtain. The store refused, so the union picketed the store as "unfair." The result was a substantial loss of business for the store—despite the fact that the store had no connection whatsoever with the original dispute.

3. Does the Taft-Hartley Act outlaw secondary boycotts?

Congress intended the Taft-Hartley Act to outlaw secondary boycotts. But there are loopholes in the Act by which the unions—with the help of interpretations favorable to them—can avoid the intent of the law.

One loophole, for instance, is that the law as interpreted permits pickets to follow the product from the place where it is manufactured to the place where it is sold.

Another loophole is that the law specifically prohibits pressure on employees but makes no mention of pressure on employers. The unions interpret this to mean that they are therefore free to coerce neutral employers.

4. Would preventing the use of secondary boycotts break unions?

No, preventing the use of secondary boycotts would not—and could not—break a union. The union has the strike remedy against the employer with whom there is a dispute. Also, the Taft-Hartley Act prevents unfair practices by employers.

5. Can my state protect me from a secondary boycott?

As a general rule, your state cannot protect you from a secondary boycott, because in most instances the National Labor Relations Board has exclusive jurisdiction over labor matters.

6. Are unions attempting to extend the use of secondary boycotts?

Yes. There are hundreds of secondary boycotts in operation today, and the number is increasing all the time. In addition, some unions want the Taft-Hartley Act amended and weakened so that secondary boycotts can be used without limitation at the site of construction jobs, and for work "farmed out" to other employers, and to water down court injunction provisions.

7. Does an injunction against a secondary boycott help?

Yes, it is the most effective form of relief available—but ways must be found to broaden its use and to make the injunction more prompt.

8. What can I do to help eliminate secondary boycotts?

You can give your Congressmen and Senators your views, as well as any specific information you may have on secondary boycotts or threats of boycotts. Also, advise the Chamber of Commerce of the United States of known examples.

Highlights of Federal Power Commission certificate cases

Bureau of Statistics, American Gas Association

● **American Louisiana Pipe Line Co.** was granted a permanent certificate to construct two new 12,000 horsepower compressor stations in Ohio and Indiana, and the addition of 2,000 horsepower at each of two existing stations in Mississippi and Tennessee. The project also includes 3 miles of pipeline and a meter station in Cameron Parish, La. The project costs $7.5 million and will enable American Louisiana to increase its average daily system capacity by 36 million cubic feet of natural gas.

● **Algonquin Gas Transmission Corp.** was authorized to construct and operate a 4,000 horsepower compressor station at Cromwell, Conn. The project, estimated to cost $1.8 million, will increase capacity by 27.4 million cubic feet per day.

● **Atlantic Seaboard Corp.** was granted a temporary authorization to construct about 18 miles of 26-inch pipeline in West Virginia and Virginia. The line which will cost $2.1 million will enable Atlantic Seaboard to transport an additional 36.5 million cubic feet of gas per day.

● **El Paso Natural Gas Co.** was authorized to construct a natural gas purification and

dehydration plant in Winkler County. The plant with an installed capacity of approximately 210 million cubic feet daily will cost $1.8 million. This plant will enable El Paso to receive, process and transport about 190 million cubic feet daily of natural gas to be purchased from West Texas Gathering Co., which will purchase the gas from producers in the Emperor and South Kermit Fields in Winkler County. In another proceeding, El Paso has applied for authority to construct 13 miles of 20-inch, and 63 miles of 16-inch transmission line, about 102 miles of field lines, a 30,600 horsepower compressor station; gasoline, fractionating and dehydration plants; and various other facilities. The cost of this project is estimated to be $26.1 million and will enable El Paso to handle a maximum average daily volume of 100 million cubic feet of natural gas from the Aneth Field area.

● **Gulf Interstate Gas Co.** was authorized to construct about 352 miles of 30-inch main line loops between Louisiana and Kentucky and about 54 miles of 24-inch lateral line loops in Louisiana. This $49.2 million project will raise Gulf's capacity from 575 million to 662 million cubic feet daily.

● **Manufacturers Light and Heat Co.** received temporary authorization to construct and operate 34 miles of 20-inch pipeline and a regulating station. Cost of project is $3.0 million.

● **Michigan Gas Storage Co.** was authorized to construct 40 miles of 26-inch pipeline, extending from a point in Gratiot County to Isabella County, and 25 new wells in the Winterfield and Cranberry Lake storage fields. The additional facilities will enable Michigan Gas Storage to withdraw an additional 31 million cubic feet per day on a peak day for sale to Consumers Power Co.

● **Natural Gas Pipeline Co. of America** received temporary authorization for the construction of a 3,000 horsepower compressor station in Kiowa County, Okla. Cost of the unit is $1.0 million.

● **Natural Gas Storage Co.** of Illinois was given a temporary certificate to construct 12 injection-withdrawal wells in a new formation in its underground Herscher storage reservoir in Kankakee County, Ill. The project to cost $2.6 million will also include 2 miles of gathering lines, a 1,330 horsepower compressor plant and 3 observation wells.

● **New York State Natural Gas Corp.** received FPC approval to construct 13 miles of 20-inch line in Potter County, Pa., to replace 13 miles of 12-inch line. The larger line will increase the capacity by more than 195 million cubic feet daily. Cost of the new line is $924,000.

● **Northern Natural Gas Co.** was granted temporary authority to construct a 2,000 horsepower compressor station in its Redfield, Iowa, storage field. This will enable the company to inject natural gas for testing purposes. Cost of construction is $1.9 million.

● **Ohio Fuel Gas Co.** was issued a certificate to develop a gas storage field in Medina County, Ohio. The project will cost $5.1 million over a three-year period. It includes initially a 3,300 horsepower compressor station and 12 miles of pipe. The company plans ultimately to drill 72 wells in addition to those already in existence. The ultimate storage capacity including cushion gas is estimated at 8.5 billion cubic feet.

● **Tennessee Gas Transmission Co.** applied for authority to construct 21 miles of 16-inch and 2 miles of 12¾-inch pipeline. The proposed construction will enable Tennessee to take delivery of natural gas from off-shore Louisiana fields. Cost of the project is estimated at $2.9 million.

● **Texas Eastern Transmission Corp.** was authorized to construct a 6,600 horsepower compressor station near Blessing, Matagorda County, Texas. Cost of construction will be about $2.4 million. In other actions, the FPC granted Texas Eastern authority to acquire and operate the natural gas facilities of two wholly owned subsidiaries—Texas Eastern Penn-Jersey Transmission Corp. and Wilcox Trend Gathering System, Inc.

In another action before the FPC Tennessee Gas was granted permission to withdraw its application to increase storage service. Involved is the proposal to build a 6,000 horsepower compressor station in Pennsylvania, at a cost of about $2.2 million. Tennessee Gas withdrew its request when Consolidated Edison Co. of New York and Brooklyn Union Gas Co. cancelled their proposed agreements.

● **Transcontinental Gas Pipe Line Corp.** was authorized to construct 556 miles of transmission line, 38,580 compressor horsepower, and about 345 miles of purchase laterals to connect new gas supply sources in southern Louisiana, off-shore Louisiana, and Texas. Transco will use these facilities to receive, purchase, transport and sell additional natural gas to 27 existing customers, and to store gas in the Leidy Field for 10 existing customers. Transco also will transport 50 million cubic feet per day for Consolidated Edison Co. of New York, Inc., and sell 10 million cubic feet daily to New York State Natural Gas Corp. The additional deliveries of gas to the 27 existing customers will total 173.6 million cubic feet daily, and the storage service will total 191 million cubic feet per day. Cost of this project is estimated at $137.3 million. In another authorization, the FPC permits Transco to construct 151 miles of purchase laterals in La Fourche and Saint Charles Parishes, La. These facilities are estimated to cost $14.5 million.

The FPC issued a joint authorization to Transco, Texas Eastern, and New York State Natural for development of the Leidy storage field. Under the Leidy storage proposal (G-13, 793), these three companies plan the initial development and activation of the field as an underground gas storage reservoir for their joint use. New York Natural, present owner of the Leidy and Tamarack pools, will transfer a one-quarter interest each to Transco and Texas Eastern, retaining the remaining 50 per cent interest and acting as operator of the storage properties. The plan for initial development of the Leidy pool provides for about 15 billion cubic feet of top storage gas and approximately 20 billion cubic feet of base storage gas. Further development of the Leidy pool, and development of the Tamarack pool, will be covered in later applications. Initial development cost of the Leidy pool, to be borne entirely by Transco, is estimated to be $12.5 million. Transco is the only partner planning to utilize the initial storage capacity.

● **Trunkline Gas Co.** has applied for authorization to build a 204-mile 26-inch extension of its main line from Tuscola, Ill., to Vistula, Ind., at the Michigan border; 463 miles of 30-inch line to loop portions of the main line from Longville, Louisiana to Tuscola; 44 miles of 24-inch line to loop portions of Trunkline's line in Texas; 3,000 additional horsepower at Longville and about 183 miles of gathering lines. Cost of construction is about $81 million and will increase Trunkline's capacity by 135 million cubic feet per day. All of the increase will be used for sale to Consumers Power Co. in Michigan.

SUMMARY OF INDEPENDENT GAS PRODUCER RATE FILINGS, JUNE 1958

	Number	Annual Amount
Tax rate increases allowed without suspension	7	$ 3,673
Other rate increases allowed without suspension	15	58,290
Rate increases suspended	32	1,818,799
Total rate increases	54	1,880,762
Tax rate decreases allowed without suspension	2	5,526
Other rate decreases allowed without suspension	—	—
Total rate decreases	2	5,526
Total rate filings	468	—
Total rate filings acted on from June 7, 1954, to June 30, 1958	30,032	—
Rate increases disposed of after suspension (during June)	14	812,290
Amount allowed	—	770,445
Amount disallowed	—	41,413
Amount withdrawn	—	432
Rate increases suspended and pending as of June 30, 1958	1,331	$59,577,735

In other FPC actions Pacific Lighting Gas Supply Co., Missouri Public Service Co., and Carolina Pipeline Co. were exempted from regulation under the Natural Gas Act pursuant to the terms of the Hinshaw Amendment. The number of companies to be exempted either fully or partially since enactment of the Hinshaw Amendment of March 27, 1954 now stands at 116.

Hospital food service supervisors hold meeting in St. Louis

Discussing Institute for Hospital Food Service Supervisors are (l. to r.): Tracy B. Madole; E. C. Michaud; Sister Rose Genevieve, director of home economics at Fontbonne College and director of the Institute; and Frank T. Hilliker. About 125 nuns attended the two-week Institute

FONTBONNE COLLEGE, of St. Louis, Mo., has recently conducted a two-week Institute for Food Service Supervisors of Catholic Hospitals. About 125 nuns attended the course.

Laclede Gas Co., which serves the territory, arranged for the 125 nuns attending the Institute to visit the utility, and one afternoon of the session was devoted entirely to gas. Two gas films—"How Clean Is Clean" and "Where Food Is Finest. . . . It Is Cooked With Gas"—were shown. Sister Rose Genevieve, director of the Institute and director of home economics at Fontbonne, suggested to delegates that they contact the session speakers for advice on selecting gas equipment and having it installed.

Speakers were: Tracy B. Madole, vice-president in charge of sales, Malleable Steel Range Manufacturing Co., whose topic was selection of equipment; E. C. Michaud, special sales representative, A. O. Smith Corp., whose topic was water heating; and Frank T. Hilliker, president of Hilliker & Associates, whose topic was modern design in hospital kitchens.

Wisconsin boiler code makes exception of gas water heaters

THE GAS APPLIANCE Manufacturers Association has hailed the recent publication of a revised boiler code by the Industrial Commission of the State of Wisconsin.

The code now gives recognition to American Standards for gas-fired water heaters and assures local acceptance of heaters approved by the American Gas Association. Previously the state required certain water heaters of more than 100,000 Btu input to conform to the requirements of the Boiler and Pressure Vessel Code of the American Society of Mechanical Engineers.

Revision of the code followed hearings at which representatives of GAMA's water heater division pointed out that the ASME Boiler Code was not originally intended to cover today's usual automatic water heaters. The ASME Boiler and Pressure Vessel Committee recognized this fact in May 1958 when it approved a code revision to except gas storage water heaters having an hourly input of 200,000 Btu or less.

Harold Massey, managing director of GAMA, expressed confidence that the enlightened action of the Wisconsin Industrial Commission and the ASME committee would serve as an example for several other states in which boiler code revisions or interpretations thereof are now under consideration.

A. G. A. announces publications issued during July-August

COMMERCIAL PROMOTION

• **PEP Commercial Cooking Campaign Portfolio.** No charge for individual copies. $2 each if ordered in quantities of 200 or more.

HOME SERVICE

• **Home Service Promotion Ideas for the Thermostatic Top Burner.** 10 cents.

INDUSTRIAL AND COMMERCIAL

• **1958 A. G. A. Commercial Gas School Lectures.** $3.50.

• **Proposed American Standard for Installation of Consumer-Owned Gas Piping and Gas Equipment on Industrial and Commercial Premises;** Information Letter No. 90. Not covered by ASA R21.30-1954 or ASA Z21.33-1950. Free.

NEW FREEDOM

• **How to Find the Range That Is Right for You.** Editorial from July issue of *Living for Young Homemakers.* Eight cents.

STATISTICAL

• **1958 Gas Facts, 1957 Data.** First five copies $3 each, additional copies $1.50.

• **Quarterly Report of Gas Industry Operations, First Quarter 1958.** Free.

Scholarships awarded

TWO NORTHEASTERN OHIO youths will attend the Illinois Institute of Technology on four-year tuition-paid scholarships granted them by The East Ohio Gas Co. The awards, presented here by East Ohio President Robert W. Ramsdell, went to James Lyle Frink, of North Madison, and to Jerry Brent Anderson, of Akron. The youths, June high school graduates, will attend the Institute of Gas Technology of the Chicago college working toward B.S. degrees in engineering. In addition to college, the program includes summer employment with East Ohio.

Gas course announced

THE THIRD semi-annual School of Gas Technology will be held at Conroe, Texas, starting Sept. 22 and continuing for six weeks. Sponsors are The University of Texas Petroleum Extensions Service, the Texas Education Agency, and a special advisory committee comprised of outstanding gas production and transmission men. The school will be staffed by about 25 educators and engineers from Southwestern gas companies and universities. For further details, write to: Petroleum Extension Service, The University of Texas, Austin 12, Texas.

Record enrollment

ENROLLMENT in the 1958 summer session of the Institute of Gas Technology of Illinois Institute of Technology was the largest in the seven-year history of the session. A total of 119 men, gas engineers from all parts of the U. S. and Canada, and from England, Pakistan, and Hawaii, enrolled in the session. The summer session was divided into intensive three-week courses, each covering one of the general fields of the natural gas industry operations—production and processing, transmission, distribution, and fuel utilization.

Major campaign to sell incinerators gets underway in Chicago

THE FIRST all-out major market campaign to sell the new smokeless-odorless gas incinerator is being launched in Chicago on Sept. 5, and will be carried on through October with manufacturers, gas utility companies and dealers cooperating.

The entire Chicagoland market—including parts of Indiana and Wisconsin—will be covered in an intensive sales drive. Four utility companies are already laying plans for their participation. They are: The Peoples Gas Light & Coke Co., Chicago; Northern Illinois Gas Co., Aurora; North Shore Gas Co., Waukegan, and Northern Indiana Public Service Co., Hammond. Thirty-two other utilities serving the area are being invited to join in the campaign.

Peoples Gas will spend $50,000 in advertising smokeless-odorless incinerators in newspapers and other media. It will also provide display materials to 354 dealers and will put 90 salesmen, 10 supervisors and 10 dealer contact men on the job.

Northern Illinois plans radio and television support for the campaign and will have 15 dealer contact men working with 500 dealers. North Shore and Northern Indiana have similar plans.

The nine participating manufacturers—all members of the Gas Incinerator Bureau of GAMA—will have 30 sales representatives working with utilities, distributors and dealers. They plan expenditures of $60,000 for advertising, promotion and display materials.

The campaign will start with a dramatic demonstration—burning loads of garbage and trash in the ballroom of Chicago's Blackstone Hotel to permit civic officials to see and sniff for themselves to prove the efficiency of the incinerator in disposing of garbage and trash without smoke or odor.

Participating manufacturers are Bastian-Morley Co., Inc., LaPorte, Indiana; Bowser, Inc., Incineration Div., Chicago, Illinois; Calcinator Corp., Bay City, Michigan; Caloric Appliance Corp., Topton, Pa.; Locke Stove Co., Kansas City, Missouri; The Majestic Co., Huntington, Indiana; Martin Stamping & Stove Co., Huntsville, Alabama; Queen Products, Inc., Albert Lea, Minnesota; Waste King Corp., Los Angeles, Calif.

Describes agencies

THE United States Government Manual, official organizational handbook of the federal government, is a publication which deserves a place on the shelf of every gas utility library. The book contains sections descriptive of the agencies in the legislative, judicial, and executive branches. Supplemental information following these sections includes: Brief descriptions of quasi-official agencies and selected international organizations; charts of the more complex agencies, and appendixes relating to abolished or transferred agencies, to governmental publications, and to certain auxiliary material. The book is for sale by the superintendent of documents, Government Printing Office, Washington, D. C. Cost is $1.50 a copy.

World groups listed

THE 1958-59 edition of the Yearbook of International Organizations comes off the press this month. This yearbook describes in detail all inter-governmental and non-governmental international organizations—about 1200. The subject matter is divided into these sections: the United Nations and the specialized agencies; European communities; other inter-governmental organizations; international non-governmental organizations; and institutes of international affairs. This seventh edition of the yearbook is in English; the sixth edition was in French, and the eighth will also be in French. Cost of the book is $14. The publisher's address is: Union of International Associations, Palais d'Egmont, Brussels I, Belgium.

Fringe benefits survey

A NEW SURVEY on fringe benefits has been published by the U. S. Chamber of Commerce. "Fringe Benefits—1957," the only up-to-date source of information on this topic, is a 36-page publication divided into the following topics: distribution of fringe payments, average fringe payments, industry and regional variations, variations by size of company, pensions and insurance costs, per cent of companies paying fringe benefits, employee payroll deductions for benefits, wage and payroll data, and comparison of payments during the years 1947, 1949, 1951, 1953, 1955, and 1957. Copies of the publication be ordered from: Economic Research Department, Chamber of Commerce of the United States, Washington 6, D. C.

Establish scholarship

A $1000 scholarship, to be awarded annually to an architecture student of outstanding promise, has been established at the University of Southern California School of Architecture by Southern Counties Gas Co. and Southern California Gas Co. The scholarship will be called the F. S. Wade Scholarship, in honor of the Southern California's board chairman, who is also a director of Southern Counties, and former president of both gas companies. Judges of the competition will be four qualified members of the American Institute of Architects and a representative of the utilities. The winner will be the college sophomore passing certain standards who submits the design judged best in a yearly competition; each yearly competition will pose a problem dealing with the kitchen and related areas.

Agree to transfer

A PURCHASE AGREEMENT has been signed between the Cascade Natural Gas Corp. and The Washington Water Power Co., transferring all of Cascade's gas distribution system in Lewiston, Idaho and Clarkston, Wash., to WWPCO. The agreement, which involves a purchase price of $1,250,000, will become effective immediately upon approval of the regulatory bodies.

PGA elects Swan at 50th meeting

C. M. SWAN, president, Pennsylvania Gas Management Co., Tamaqua, Pa., was elected president of the Pennsylvania Gas Association at the opening session of the Association's 50th annual meeting, May 20-22, at Pocono Manor Inn, Pocono Manor, Pa.

Other officers elected were: first vice-president, W. C. Pierson, general superintendent gas operations, Philadelphia Electric Co.; second vice-president, E. H. Smoker, president, The United Gas Improvement Co.; third vice-president, L. B. Richards, vice-president, The United Gas Improvement Co.; and secretary and treasurer, J. A. Schultz, division accounting manager, The United Gas Improvement Co., Reading.

Speaker on the first-day program was C. Edwin Bartlett, Ruud Manufacturing Co. On the second day, talks were given by R. G. Rincliffe, president of Philadelphia Electric Co.; E. H. Smoker, president of The United Gas Improvement Co.; and A. G. A. President Robert W. Otto, chairman of the board of Laclede Gas Co. In the afternoon, Julia Meade and Mrs. Helen Giesse—Mrs. America—made personal appearances.

On the final day of the three-day meeting, talks were given by John Ware III, president of Penn Fuel Gas Co., and LPGA President A. E. Bone, owner of Eastern Propane Co.

PGA officers (l. to r.) are: front row—W. C. Pierson, C. M. Swan, E. H. Smoker; back row—PGA Managing Director Frank H. Lichtenwalter, L. B. Richards, and J. A. Schultz

Counselors optimistic about gas stocks

ARNOLD BERNHARD & CO., investment counselors, reviewed 23 gas industry stocks and came up with an optimistic view of the industry. Their view was summarized as follows in the July 23 issue of the company's report, *The Value Line Investment Survey:*

"While dividends of industrial companies were falling right and left under pressure of eroding earnings, the natural gas industry, in the first quarter of 1958 posted the highest sales and earnings of any three-month period on record. Moreover, prospects are for only a slightly less favorable showing for the balance of the year. Dividend increases, not cuts, will characterize this industry in the months ahead. It is clear that, economically at least, these companies are in a sound position. But confusion concerning the future, particularly as regards the regulatory processes, still persists. Our analysis suggests that there are solid grounds for optimism that much of the uncertainty will be cleared away, and that the futures of these companies will continue bright."

Besides the analysis of the industry, this issue of *The Value Line Investment Survey* devotes a full page to each of the 23 stocks. A current analysis, three to five year projections, and advice are given on each stock.

Their address is 5 East 44 St., New York 17.

Booklet outlines program to assist contractors

A PROGRAM of direct assistance to contractors in helping minimize risk of damage to underground facilities during construction and excavation has been outlined in a booklet entitled "Avoid Personal Injury and Property Damage" prepared by Southern Union Gas Co.

The booklet points out that in addition to expensive repair costs, damage to utility lines can also create hazards to life and private property. It cites different classes of utility lines which if disturbed could isolate an entire area from fire, police and other protection, and urges contractors to contact the gas company for help in locating pipelines in advance of construction work.

Copies of "Avoid Personal Injury and Property Damage" may be obtained free of charge by writing Southern Union Gas Co., Burt Building, Dallas 1, Texas.

New process plant

THE FIRST privately owned and operated natural gas compressor plant in Saskatchewan, Canada, is due to begin operation this fall, according to Don Wolcott, vice-president and general manager of Steelman Gas, Ltd., Steelman, Saskatchewan. Located in the southeast area of Saskatchewan, near the site of the South Saskatchewan Power Dam project, the new process plant will process 25 million cubic feet of casinghead gas per day and liquid petroleum products to fuel the expanding industrial and agricultural growth of the area. This plant is one more step forward in Saskatchewan's long-range conservation program.

Walker appointed

ODIE E. WALKER of the Mueller Co., Decatur, Ill., has been named adviser to the director, Water and Sewerage Industry and Utilities Division, Business and Defense Services Administration, U. S. Department of Commerce. Mr. Walker is vice-president and works manager of Mueller's U. S. plants. He will serve without compensation on loan from his company, under an arrangement by which industry makes key executives available for the six-month tours of duty in government. In this new post, he succeeds David L. Wright who is returning to the Badger Meter Manufacturing Co., Milwaukee, where he is sales administrator.

Storms kayo power; gas lights the way

The gas industry doesn't expect to push one of Edison's finest inventions into obscurity, but the fact that gas lighting can serve as an excellent illuminant was dramatically proven recently.

A fast reminder of gas lighting's efficiency bolted out of the blue in two states—Kansas and Texas—and the results are not likely to be forgotten.

When a terrifying tornado ripped through El Dorado, Kan., the only lighted spot in the community was the sales floor of a local office of The Gas Service Co. A gas light on display was hurriedly connected after the tornado had swept away four main power lines, allowing gas company work to continue during the entire night.

Later, a tornado and hailstorm hit the Pecos area of Texas, and only customers with gas lights were spared from total darkness. Enthusiastic dealers extolling the virtues of gas lighting for the home say this is just one more good reason that the move to gas lighting in yards, patios, and walkways is under way.

Three honored

THREE gas industry men from various parts of the country have recently been honored by trade groups. They are Louis J. Wagner, Fred D. Bradley, and E. C. Jacquel. Mr. Wagner, manager of the sales engineering bureau of the Consolidated Edison Co. of New York, has been elected chairman of the Metropolitan Gas Heating and Air Conditioning Council. This council meets monthly at A. G. A. Headquarters to discuss ideas, methods, and problems relating to the management of gas heating and air conditioning sales activities. Mr. Bradley, assistant treasurer of Southern Union Gas Co., has been elected vice-president of the national association of Purchasing Agents. He will serve on the Executive Committee of NAPA, which serves a membership of over 16,000 purchasing agents. Mr. Jacquel, architectural representative for The Peoples Natural Gas Co., received an award from the American Institute of Architects for a manual he had prepared and presented to a local chapter of AIA. The manual, which presents data for architects, aids the gas industry through its publication of facts and figures on gas.

Tell GAMA story

TRADE ASSOCIATION executives attending the 1958 Institute for Organization Management held at Yale University, Aug. 3-9, got a glimpse of the way gas industry associations operate at peak efficiency. Mrs. Harriot Toy, office manager of the Gas Appliance Manufacturers Association, lecturing at the invitation of the Institute's executive operating council, detailed the varied functions of today's trade association—statistical programs, technical matters, traffic problems, public relations, special promotions, exhibitions and meeting emergencies such as discriminatory legislation or taxation. Mrs. Toy cited some of the complexities in the management of an association such as GAMA. She pointed out that while all members do not have identical interests, objectives or opinions, a spirit of cooperation and united action permits the association to achieve mutually beneficial results that could not be accomplished by companies individually.

Ads promote gas

THE gas industry is receiving a promotional boost from one of its major suppliers which holds to the theory that "What's good for the gas industry is good for us." Pittsburgh Coke & Chemical Co.'s Protective Coatings Division, producer of Pitt-Chem coal tar coatings and enamels used by the industry to protect gas lines from corrosion, has for the past few years devoted—and will continue to devote—a portion of its corporate advertising budget to promote its customers. In *Newsweek* and *Business Week*, Pittsburgh Coke & Chemical has run full-page, four-color advertisements designed to increase the use of gas in the home and in industry. Two of the most recent advertisements have promoted the efficiency, safety, reliability and low cost of gas cooking, pointing out that this is because gas is transported by dependable underground pipeline.

Sales papers available

THE following papers, presented at the A. G. A. Sales Conference on Industrial and Commercial Gas, are now available free of charge from the A. G. A. Order Department: "Engineering Large Boiler Conversions to Gas," by Robert A. Himmelmann, The Peoples Gas Light & Coke Co.; "Area Industrial Development," by G. R. Walton, Houston Pipe Line Co.; "Indirect Gas-Fired Furnaces for High Temperature Processes," by A. H. Koch, Surface Combustion Corp.; "Latest Developments in the Industrial Gas Field," by Robert C. LeMay, Selas Corp. of America; "A. G. A. Gas Research Projects," by Thomas E. Hampel, A. G. A. Laboratories; "Design Considerations to Abate Air Pollution by Commercial and Industrial Incinerators," by J. E. Bown, Department of Smoke Regulation, Milwaukee, Wisc.; "Air Pollution and the Gas Industry," by Fred R. Rehm, Department of Smoke Regulation, Milwaukee, Wisc.; "Relationship Between Temperature and Deep Fat Frying," by Richard T. Keating, Frying Equipment & Supply Co.; and "Let's Look at the Future Commercial Gas Kitchen," by O. Ernest Bangs, Stephen-Bangs Association, Inc.

Correct abbreviation

IN USING the abbreviation A. G. A. when referring to the American Gas Association, the periods should always be included. This is the subject of an agreement that the American Gas Association has with AGA Stove Co., to avoid possible confusion of the two names.

Brooklyn Union designs new leak detector

THE Brooklyn Union Gas Co., on the alert to adopt new apparatus and new means of leak detection, has fabricated a new "leakmobile" which is both dependable and practical.

About two years ago, Brooklyn Union investigated a mobile leak detector described in detail at the 1956 A. G. A. Distribution Conference. The mobile unit was a station wagon in which was installed a Liston-Becker infrared detection instrument calibrated to show the presence of minute traces of natural gas. A sampling hose extending almost to pavement level continuously sampled the air while the vehicle cruised at about ten miles an hour. A significant reading on the instrument would indicate a gas leak from a main usually under the paving. This unit, however, did not fill the needs of Brooklyn Union, since in the streets of Brooklyn, N. Y., asphalt pavement extends from curb to curb and gas seepage has to take devious routes.

Brooklyn Union then took on the task of designing a pushcart-type mobile leak detector which could utilize the Liston-Becker instrument for locating leaking house service pipes. The difficulties involved were numerous. For example, the cart, unlike the station wagon, would have no way to generate the electric power necessary for the operation of the instrument, and it would not have the engine suction to sample the air. Also, there were weight limitations, since the cart would be pushed by only one man.

When these difficulties were solved, operating difficulties became evident. The problem of transporting the unit from one area to another was solved by the use of a suitable trailer, equipped with skids and hand-operated cable winch. And the problems of storage and charging of the two batteries—which furnish the power for the infra-red instrument and the sampling pump—were eliminated when the company located a neighborhood service station willing to charge the batteries while storing the unit overnight.

John Fox (r.), Brooklyn Union Gas Co., wields probe that will detect as little as .005 per cent of natural gas in air. A ringing alarm would alert operator Sam Nappi (l.) to dig a barhole for combustible gas indicator test

South Jersey wins seven honors in PUAA Better Copy Contest

SOUTH JERSEY Gas Co., Atlantic City, was top winner with seven oustanding honors in the field of advertising in the Better Copy Contest sponsored by the Public Utilities Advertising Association. Elton E. Stuenckel, sales promotion and advertising manager for the company, accepted the awards at the association's convention in Pittsburgh.

The company won first place in dealer promotion material; second place for a complete program of institutional advertising, newspaper advertisement series on public relations, interior displays and single advertisement promoting the use of gas; and third place awards for window display and employee magazine.

A total of 2,096 entries were received in this year's contest, which is the 35th annual contest conducted by the association and the oldest continuous advertising competition. The contest included newspaper advertisements, magazines, employee newspapers, direct mail, publications, display, posters, billboards, annual reports, radio and television, and motion pictures.

New Columbia Gas System affiliate begins operations

THE Ohio Valley Gas Co., Columbus, Ohio, a new affiliate of The Columbia Gas System, Inc., began operations July 1 in another step in Columbia's corporate simplification program. Ohio Valley Gas will operate in the state of Ohio retail distribution facilities acquired from United Fuel Gas Co. of Charleston, W. Va.

Subsequently, Ohio Valley also will acquire retail properties operated in Ohio by The Manufacturers Light & Heat Co. Operating solely within the state, Ohio Valley Gas will be subject only to the jurisdiction of the Public Utilities Commission of Ohio. At a later date, it is expected that the retail business of The Ohio Fuel Gas Co., of Columbus, and Ohio Valley Gas will be combined into a statewide retail company.

As part of the program for simplification, the Federal Power Commission has authorized the sale of gas by United Fuel to Ohio Valley Gas for retail distribution in the area of Ohio formerly served by United Fuel.

The aim of Columbia's simplification program is to have each operating subsidiary subject to but one jurisdiction and so reduce the cost of such regulatory supervision.

Utility sponsors scholarship for agricultural engineering students

A $500 SCHOLARSHIP has been provided by Western Kentucky Gas Co. and its LP-Gas subsidiary for agricultural engineering students at the University of Kentucky. The winner will be selected by a committee of the university's College of Agriculture and Home Economics, with preference—if all other qualifications are equal—to be given to a resident of the service area of Western Kentucky Gas Co. or Kengas. In providing the Kengas, Inc., Agricultural Engineering Scholarship, the utility explained that it is the company's "keen desire to assist in the education of young men in whose hands rest the continued progress of Kentucky."

Natural gas extension into eastern North Carolina planned

NORTH CAROLINA'S dramatic industrial development program will receive tremendous impetus through the extension of natural gas facilities in the eastern portion of the state, key state and municipal officials agreed at a special mayors conference in Wilmington.

At the July 28 meeting, Clifford B. Ewart, president of the Tidewater Natural Gas Co., Wilmington, announced the signing of a contract with C. N. Flagg & Co. This contract provides for the installation of 200 miles of additional lateral and intra-city pipelines to serve 167,000 people in Wilmington, Fayetteville, Kinston, New Bern, and Washington.

Walter W. Harper, North Carolina industrial development administrator, joined with the mayors of these five cities, Mr. Ewart and Albert A. Hanschultz, vice-president of the pipeline installation firm, in announcing the $3,500,000 project.

"Natural gas is an important factor in beckoning new business, and, properly used, promoted and developed, it becomes a tremendous asset," Mr. Harper, who delivered the main address, said.

J. E. L. Wade, mayor of Wilmington, acted as host at the conference called in a special effort to point up the area's suitability for industrial development. The other four mayors who joined in sponsoring the event are: George B. Herndon, Fayetteville; Guy Elliot, Kinston; A. T. Stewart, Washington; and Robert Stallings, New Bern.

P. McDonald Biddison, president of North Carolina Natural Gas Co., announced that his utility is now completing arrangements for the installation of more than 600 miles of main pipeline linking eastern North Carolina with the transcontinental pipeline which runs through the center of the state. Projected plans call for the introduction of natural gas into 26 additional cities in the eastern portion of the state.

Tidewater Natural Gas Co.'s contract with the North Carolina Natural Gas Co. calls for delivery of up to 40,000,000 cubic feet of gas daily to be distributed in Wilmington, Fayetteville, New Bern, Washington and Kinston.

In preparation for the actual pipeline installation work, scheduled to get underway in early fall, C. N. Flagg & Company, with headquarters in Charlotte, will move $500,000 worth of equipment into warehouses in the area. Construction will be directed from the company's branch offices in Wilmington.

Mr. Hanschuitz, who represented Mr. Flagg at the meeting, revealed that his company will meet a peak payroll of $40,000 per week from Wilmington during the course of the installation work. The pipes will be installed three to four feet underground.

"We are taking great pains to assure everyone there will be virtually no interruption of service or disruption of public facilities while the heavy construction work is going on," he declared.

The pipeline firm has prepared special films and visual presentations for civic groups and business organizations explaining how the heavy construction work will proceed. In addition, it has prepared a local institutional advertising campaign, geared to the theme "C.N.F. means T.L.C." (a hospital abbreviation for Tender Loving Care) in handling heavy construction work. From time to time work progress reports will be made to the public.

Tidewater Natural Gas Co. estimates 5,000 new dwellings will be built in the five-city area in the next five years. By the end of that period, the utility, which currently serves 11,000 customers, plans to be distributing gas to 25,000.

After the completion of pipeline extension, the utility will convert from propane gas, now in use, to natural gas.

"The introduction of an economical fuel will be a special inducement to industrial growth," Mr. Ewart declared. Among other industries, a giant titanium plant has been announced for construction outside Wilmington as a joint venture by Allied Chemical Corporation and Kennecott Copper Corporation. The Allied-Kennecott Titanium Corporation has not announced a date for the start of construction.

The bulk of the consumers, however, will be residences and businesses within the limits of the five cities which are about 90 miles apart.

City authorities and members of the chambers of commerce present at the Mayors' Conference were in accord that property values will appreciate when the installation work is completed. Wilmington in particular is expected to have real estate development potential as a seaport since it lies on Cape Fear River. Gas is brought to the state via the Transcontinental Pipeline Co.

88 companies show improvement in safety

THE INDUSTRY is heading for another new low in the number of disabling injuries per million man-hours worked, according to a recent A. G. A. survey. The survey of employee accident statistics for the first quarter of 1958 included a more comprehensive sample than previous sample surveys. Participants were 88 companies representing 39 per cent of the industry's employees.

Companies were selected on the basis of size and location as being representative of the industry.

The accident frequency rate averaged 7.38, and the severity rate averaged 322 days lost due to disabling injuries. Both are an improvement over 1957. One fatality was reported.

Seventy-two companies reported information on vehicle accidents. These companies, with one-third of the industry's total employees, showed an average of 1.73 accidents per 100,000 miles traveled, an increase of 23.6 per cent over the rate for the year 1957.

GAS EMPLOYEE ACCIDENT EXPERIENCE (FIRST QUARTER, 1958)

	1957	1958
	Annual	First Quarter (Sample)
Number of reporting companies	433	88
Average number of active employees	192,355	76,782
Number of injuries		
Fatality	14	1
Permanent total disability	1	0
Permanent partial disability	107	4
Temporary total disability	3,208	284
Total	3,330	289
Days charged		
Fatality	84,000	6,000
Permanent total disability	6,000	0
Permanent partial disability	30,952	2,302
Temporary total disability	53,108	4,086
Total	174,060	12,388
Frequency rate		7.38
Severity rate		322
Vehicle accident statistics		
Average number of employees	150,206	67,404
Number of vehicles	39,175	19,358
Vehicle miles traveled (000)	487,732	53,201
Number of reportable accidents	6,848	918
Number of personal injuries	212	44
Accidents per 100,000 miles traveled	1.40	1.73

East Ohio elects four company executives to board of directors

ELECTION of four new members to The East Ohio Gas Co. board of directors has been announced. They are: George P. Binder, chief engineer; John S. McElwain, general sales manager; Charles E. Gallagher, manager of distribution for the southern region; and Thomas J. Noonan, manager of distribution for the northern region. The appointments follow the retirement from the board last month of William G. Rogers, chairman, and George W. Horsley, senior vice-president. Two new directorships were created to bring the total board membership to ten.

Mr. Binder joined East Ohio in 1920 as an electrolysis engineer. He subsequently held engineering posts in Youngstown and Cleveland and in 1928 was named general superintendent of the Akron division. Later he was named superintendent of the Cleveland division. In 1951 he was appointed chief engineer.

Mr. Gallagher began his career with the gas industry in 1937 with the Hope Natural Gas Co. of West Virginia. Two years later joined East Ohio's sales department, and in 1940 was named assistant manager of the Youngstown Division. Subsequently he held posts as manager of the Warren division, manager of the Youngstown division, and general superintendent. He was promoted to his present position last February.

Mr. McElwain joined East Ohio as general sales manager in 1955. Previously, he was general sales manager of the New York State Natural Gas Corp., and assistant general sales manager of the Peoples Natural Gas Co. He joined Peoples as a commercial salesman in 1934.

Mr. Noonan joined East Ohio as a plant engineer in 1933. He later served as a general foreman in the Youngstown division and assistant superintendent of the Cleveland operating division. In 1950, he was named general sales manager, and two years later superintendent of the Cleveland operating division. He was promoted to his present post early this year.

Personal and otherwise

Pike vice-president

R. DEWITT PIKE has been elected a vice-president of Rochester Gas and Electric Corp. Mr. Pike, a 1917 graduate of the University of Rochester, joined RG&E that same year. He was first employed in the industrial sales department as a cadet engineer and after a series of promotions became, in 1950, manager of the commercial and industrial sales departments. In 1952 he was appointed general sales manager, and in 1953, director of employee relations. He is a member of the American Gas Association Personnel Committee.

Waterman vice-president

WILLIAM B. WATERMAN, general counsel, Iowa-Illinois Gas and Electric Co., has been elected vice-president and general counsel of the company. A graduate of Dartmouth College and Harvard Law School, Mr. Waterman was associated with the Davenport law firm of Lane and Waterman for 17 years. In 1952 he joined the Iowa-Illinois utility as assistant general counsel. He was named general counsel in 1954. Since October of 1952 he has been a member of the utility's management advisory board, having served as chairman for two terms.

Webber retires from Tucson utility after 46 years in gas industry

CLAUDE H. WEBBER, who has been in the gas industry for 46 years, retired last month as vice-president and superintendent of the gas division of The Tucson Gas, Electric Light and Power Co.

Mr. Webber entered the industry as manager of Southwest Gas Co., in California. He held this post for six years, and in 1918 became manager of gas operations for the City of Redlands, Calif. In 1920, he merchandised gas appliances in Los Angeles, and two years later moved to Arizona to become superintendent of the gas department of the Tucson utility. He spent 36 years with this utility—44 of them as a member of the Pacific Coast Gas Association and 25 years as a member of A. G. A. He was a director of A. G. A. in 1955-56.

Special highlights of Mr. Webber's career occurred in 1922 and 1952. In 1922, when he took over the management of the gas department, he converted the old distribution system to a new system he designed—a pressure-control system using all-welded steel mains. This now serves as the nucleus of the present system and no major design changes have been required since, despite a growth in customers from 2,000 to 56,000. The second innovation made by Mr. Webber was the installation of plastic pipe into a natural gas distribution system. This installation in 1952 was the first time plastic pipe was installed in any such system.

Names in the news—a roundup of promotions and appointments

UTILITY

F. M. Banks has been elected to the board of Suburban Gas Service, Inc. Mr. Banks, president and general manager of Southern California Gas Co., is a past president of A. G. A. and the Pacific Coast Gas Association, and a director of the Independent Natural Gas Association of America and the American Petroleum Institute.

Southern Counties Gas Co. of California reports that **Robert M. Olson Jr.** has been appointed assistant counsel, succeeding **Joseph R. Rensch,** now assistant vice-president and special counsel of Pacific Lighting Gas Supply Co. Mr. Olson was formerly secretary and trust officer of Security and Title Insurance Co. Also at Southern Counties, **Homer Laughlin** has left his post as advertising manager, for reasons of health. Mr. Laughlin served the utility since 1952, and before that time was assistant advertising manager of Southern California Gas Co. for 16 years. He was a member of the National Advertising Committee of A. G. A. from 1954 to 1956.

H. B. Keenleyside has been elected a director of Union Gas Co. of Canada, Ltd. He is president and managing director of Photo Engravers and Electrotypers Ltd.

Philadelphia Gas Works has announced the appointment of **Charles R. DeHaven** as manager of public relations. Before joining PGW, Mr. DeHaven was for five years director of public relations of the Pennsylvania Association of Milk Dealers, and spent ten years in the Air Force where he rose to public information supervisor.

At The Ohio Fuel Gas Co., **Foster E. Groff** has been promoted to northern compressor division superintendent, succeeding **Frank E. O'Leary** who has recently retired. Two other Ohio Fuel employees have retired recently. They are **Robert R. McCuen,** office manager of the Wooster production office, with 42 years of service, and **Hugh Dunlap,** engineer at the Knox compressor station, with 35 years of service.

James A. Hickey has been appointed safety coordinator at Southern Union Gas Co. Mr. Hickey, a member of the A. G. A. Accident Prevention Committee, has served

since 1953 as safety supervisor for the Atlanta Gas Light Co. **A. G. Prasil** has been named to Southern Union's home office engineering staff. He has had several years of experience in public utility engineering.

James J. Noury has succeeded **L. A. Porter** as Duncan (Okla.) distribution manager of Consolidated Gas Utilities Corp. Mr. Porter, who has been in the gas utility industry during his entire career, retired in June. Mr. Noury has been with Consolidated since 1947.

Walter D. Howell has been named manager of commercial, industrial and agricultural sales for Pacific Gas and Electric Co. He succeeds **J. H. Gumz,** who has retired after 36 years with the company. Mr. Howell, who has been with the company for 32 years, was most recently manager of agricultural sales and special accounts.

Several promotions and changes in the sales department of Washington Natural Gas Co. have been announced. **James Bird** has been appointed to a new position, administrative assistant to the northern division sales manager; **William Dearborn** is now domestic sales supervisor; **J. P. Handley** is industrial sales supervisor; **Charles Teague** becomes sales staff heating consultant; **Gordon Larson** was transferred to the commercial sales department; and **Vernon Strieck** becomes industrial sales representative.

R. Arnold E. Davidson, formerly assistant test engineer, has been promoted to test engineer of The Connecticut Light and Power Co., with charge of the test department. He succeeds **John M. Joy,** who retired last month after heading the company's test department for 38 years.

PIPELINE

J. E. Allison, director of sales and customer relations for Texas Gas Transmission Corp., has been elected a vice-president. He will retain his former responsibilities. New chief engineer of the company is **E. J. Jandacek,** who has been assistant chief engineer since he joined the company in 1949. New manager of industrial development is **Glover H. Cary Jr.,** who has held positions in the pipeline, public and employee relations, and company housing departments since he joined Texas Gas in 1950.

Emmet C. Wilson, manager of the land department of Texas Eastern Transmission Corp.'s wholly owned subsidiary, La Gloria Oil and Gas Co., has been elected a vice-president of La Gloria. In addition, he will serve as assistant to John F. Lynch, senior vice-president of Texas Eastern.

MANUFACTURER

Leonard Gold has been named advertising manager of The Cleveland Heater Co. Prior to this appointment he served for three years as advertising manager of The Frankelite Co., northeastern Ohio appliance distributors.

Norge Division of Borg-Warner Corp. announces the following three staff changes: **James Ruff** has been promoted to director of sales planning, **Howard Ballard** has been appointed sales promotion manager for kitchen appliances, and **Cyrus F. Weeks** has been appointed district manager responsible for home appliance sales in Montana, Colorado, Oregon, Utah, and Washington.

William F. Johnson, sales promotion manager of Hardwick Stove Co. for the past four years, has been appointed sales manager. Succeeding him as sales promotion manager will be **J. B. Hansen,** formerly account manager of the Franklin Manufacturing Co.

OTHER

The Canadian Gas Association has announced the appointment of **Douglas E. Dingwall** as advertising manager. Mr. Dingwall, who has extensive experience in advertising and graphic arts, will coordinate the CGA's new PAM national advertising program. CGA plans to spend $150,000 for the first year of this program, which is aimed at promoting the sale of gas and gas equipment.

New executive vice-president of Dresser Industries is **J. P. Gasser,** formerly with Seaboard Oil Co. as executive vice-president and member of the Executive Committee.

G. E. Stahl, manager of gas supply for Pioneer Natural Gas Co., has been elected a vice-president of Pioneer Gathering System, a wholly owned subsidiary. He will also continue his post with the parent company.

Marvin F. Hall, who has been with Ebasco Services Inc. since 1951, has been named consulting gas engineer. He will have charge of gas engineering activities for the consulting firm. Before joining Ebasco, Mr. Hall was with Washington Gas Light Co.

John M. Drabelle

consulting engineer and retired chief engineer for Iowa Electric Light and Power Co., died recently at the age of 71.

Mr. Drabelle, holder of various patents and numerous technical articles, retired from Iowa Electric in 1952 after 42 years' service. After his retirement, he was a consultant for Allis-Chalmers. His career spanned more than 30 years of engineering work in both the electric and gas utility industries.

Mr. Drabelle earned graduate and postgraduate engineering degrees from Purdue University. Particularly active in trade and industry groups, he was a past president of the Midwest Gas Association, and for exactly 40 years a member of the American Gas Association.

Surviving are his wife Ruth and one son.

John J. Delaney

62, general manager of the Reliance Regulator Division of American Meter Co., died June 10 after a brief illness.

Mr. Delaney served with the Reliance Regulator Division, Alhambra, Calif., for 28 years and became general manager in 1942. He began his career with The Peoples Natural Gas Co. in Pittsburgh in 1909, and was later associated with the Union Gas Company, Cincinnati; Gulf Refining Co., Houston; General Petroleum Corp., Los Angeles; and Westcott & Greis, Inc., Tulsa. He joined Reliance in 1930.

Mr. Delaney studied at the University of Texas at Austin. He was the second president of the Southern California Meter Association, served as vice-chairman of the Manufacturing Section of the Pacific Coast Gas Association, and was a member of the American Gas Association, Southern Gas Association, American Petroleum Institute, California Natural Gasoline Association, and the Gild of Ancient Supplers and the Jonathan Club.

R. L. Fletcher

formerly president of Providence Gas Co., died Aug. 11 at the age of 66.

Mr. Fletcher graduated from Massachusetts Institute of Technology in 1915. After graduation he worked for brief periods for the Koppers Co. of Pittsburgh, La Belle Iron Works of Steubenville, Ohio, and Seaboard By-Product Coke Co. of Kearney, N. J. He was first employed by Providence Gas Co. in 1918 as plant assistant superintendent. He became plant superintendent, vice-president and engineer.

He was elected president in 1948 and served in that capacity until his retirement in August 1957. He was a member of the company's board of directors from 1944 until his death. He was also a director of Industrial National Bank and the Algonquin Gas Transmission Co.

Mr. Fletcher was a past president of the New England Gas Association and the Guild of Gas Managers and served for two terms as a director of the American Gas Association. As chairman of the American Gas Association Domestic Research Committee in 1942 he revitalized the work of that committee which aroused the industry to the need for a greatly expanded research program.

In 1939 he was awarded the Meritorious Service Medal of the American Gas Association in recognition of his work in maintaining the company's service after the 1938 hurricane and flood. That award cited his "bravery, intelligence, judgment and forceful leadership" during the disaster period.

Surviving are his wife Hope, a son, a daughter, two brothers and three grandchildren.

Parkes president

Ed Parkes

ED PARKES has been appointed president of United Gas Corp. N. C. McGowen, who has been president since 1944, will continue as chairman of the board.

Mr. Parkes has been associated with the United Gas system for more than 30 years. He has most recently been serving as executive vice-president of United Gas Corp. and as president of United Gas Pipeline Co. and Union Producing Co., wholly-owned subsidiaries. He is a director of the American Gas Association.

Erwin vice-president

JAMES H. ERWIN, superintendent of the gas division of Central Illinois Electric and Gas Co., has been elected a vice-president. Mr. Erwin's utility career started when he joined Northern Indiana Public Service Co. in 1922, as a part-time cadet engineer. He remained with the utility until 1927, two years after his graduation from Purdue University. Then he moved to Rockford, Ill., and served as superintendent in charge of construction of the Rockford Gas Light and Coke Co.'s old coke oven plant. He was appointed superintendent of the gas plant of Rockford Gas Light in 1929, and in 1931 was named superintendent of the gas division of Central Illinois. He is a member of A. G. A.

B. L. Klein president

BERNARD D. KLEIN, former president of Gas Purifying Materials Co., has resigned from his post and has been named chairman of the board. Elected new president and treasurer of the Long Island City, N. Y., company is Bertram L. Klein. Other officers elected are: Theodore P. Keller, executive vice-president; Stanley S. Weiser, vice-president; and Miles M. Klein, vice-president and secretary.

Sedgwick vice-president

DONALD L. SEDGWICK has been promoted to vice-president of Northern Natural Gas Co. Mr. Sedgwick, general manager for Peoples Natural Gas Division of Northern since May, was previously director of marketing for Northern. He has nearly 40 years of experience in the utility industry.

Industrial Relations

(Continued from page 15)

Act. Then he adds:

"However, Section 9(c) does not guarantee the returning serviceman a perfect reproduction of the civilian employment that might have been his if he had not been called to the colors. Much there is that might have flowed from experience, effort, or chance to which he cannot lay claim under the statute. Section 9(c) does not assure him that the past with all its possibilities of betterment will be recalled. Its very important but limited purpose is to assure that those changes and advancements in status that would necessarily have occurred simply by virtue of continued employment will not be denied the veteran because of his absence in the military service. The statute manifests no purpose to give to the veteran a status that he could not have attained as of right, within the system of his employment, even if he had not been inducted into the Armed Forces but continued in his civilian employment."

Justice Frankfurter also states this view: "The statute does not envisage overriding an employer's discretionary choice by any such mandatory promotion. Nor does it sanction interfering with and disrupting the usual, carefully adjusted relations among the employees themselves regarding opportunities for advancement."

He also points out that seniority alone does not, under the contract at MKT, entitle an employee to move from Group Two to Group One. Fitness and ability also are relevant.

All-gas house

(Continued from page 32)

room his wife wants, or a larger lot, or an extra bath.

This positive approach has worked so well that in one case a family of four, on buying a gas house of savings in Bethel Borough, a suburb of Pittsburgh, insisted that the builder supply them with a gas dryer and a gas refrigerator in addition to the built-in gas range, the gas water heater, and the automatic gas furnace which were already installed in the model home.

One of the big features of the package is the offer of the Natural Gas Companies to have trained demonstrators available to the builders. Many of these demonstrators have been state, regional and local winners in the "Mrs. America Homemaking Contest." Others are trained home economists employed by the gas companies. They are a big help to the builder who wants to "sell the features!"

Headed by a steering committee of the three sales managers of the Natural Gas Companies and operated through the New Building Committee with full support and cooperation of the dealers and the gas companies' advertising and publicity departments, the "all-gas house of savings" promotion not only got off to a flying start, but all indications show that it has every sign of winding-up as one of the gas industry's most successful home builder promotions.

CONVENTION CALENDAR

1958

NOVEMBER

3-7 •National Hotel Exposition, Coliseum, New York City. (A. G. A. will exhibit)

7 •American Institute of Mining, Metallurgical and Petroleum Engineers, Annual Off-the-Record Meeting, Pittsburgh, Pa.

17-20 •American School Food Service Association, Philadelphia, Pa. (A. G. A. will exhibit)

30-Dec. 5 •American Society of Mechanical Engineers, Statler Hotel, New York City.

DECEMBER

1-3 •American Society of Refrigerating Engineers, Semi-Annual Meeting, Hotel Roosevelt, New Orleans, La.

1-4 •National Warm Air Heating and Air Conditioning Association, Annual Convention, Cleveland, Ohio.

7-9 •Institute of Appliance Manufacturers, Statler-Hilton Hotel, Dallas, Texas.

16 •Rocky Mountain Gas Association, Annual Meeting, Denver, Colo.

1959

JANUARY

18-22 •National Association of Home Builders Convention and Exposition, Chicago, Ill. (A. G. A. will exhibit)

19-20 •Industrial Heating Equipment Association, Hotel Cleveland, Cleveland, Ohio.

26-30 •American Society of Heating and Air Conditioning Engineers, Annual Meeting and Exposition, Philadelphia, Pa.

29-31 •A. G. A. Home Service Workshop, Jung Hotel, New Orleans, La.

MARCH

2-4 •General Management Section Conference, Hotel Statler, Cleveland, Ohio.

9-11 •Mid-West Gas Association, Annual Meeting and Convention, Hotel Ft. Des Moines, Des Moines, Iowa.

19-20 •New England Gas Association, Annual Meeting, Hotel Statler, Boston, Mass.

26-27 •Oklahoma Utilities Association, Annual Convention, Mayo Hotel, Tulsa, Okla.

Personnel service

SERVICES OFFERED

Administrative Officer—desires position in management or operations of utility of 150,000 meters or less. Thirty years' experience in all phases gas business with an outstanding achievement record. Active in state and national associations and wide acquaintance in the gas industry. Resume and references upon request. Available immediately. Age 52. **1917.**

Regional Manager—11 years' experience in the appliance business on a national, regional, and wholesale level, six years in New York and Northeast, top full line manufacturers. Outstanding record in sales, merchandising, promotion, advertising, sales training, and administration. B.B.A. degree, majors—marketing and sales. Married, one child; willing to relocate. **1918.**

Marketing & Sales Director—engineering background. Experienced in determining customer needs, guiding product development, directing sales and advertising. Background covers entire marketing chain including market research, product engineering and styling, advertising, sales management, promotion, long range planning and diversification. Marketed many products including commercial food service equipment, to industrial and institutional fields. **1919.**

Administrative Petroleum Engineer—3-4 years' diversified experience gas processing, oil and gas production and transmission. Obtaining M.B.A. degree in June, available late June '58. Desire gas or petroleum economic, planning, or coordination position. Family, age 29. **1920.**

District Manager—associated for 13 years with number one gas range manufacturer handling New England territory, for sale of ranges (built-in) space heating and commercial cooking equipment. Have broad dealer and distributor background, also strong experience and personal contacts with gas utilities. Desire position with gas utility or manufacturer, if possible, in New England. Will re-locate. Married, age 39. **1921.**

Graduate Harvard College—major economics; Yale Law School, 1957. Specialist natural gas and allied problems. Seeks employment in legal capacity. Author, "Pricing Standards for Natural Gas." Copy of treatise and statement of qualifications on request. **1922.**

Industrial Sales Engineer—presently employed, desires a supervisory position with a natural gas company where experience is needed and further advancement is possible. Graduate engineer with 32 years' experience in the industrial, commercial, and central house heating fields, covering gas sales, engineering, supervisory installation and service, customer classification, rates, contract negotiations, and complaints. References, salary desired and other detailed information will be gladly furnished. **1923.**

Young Man—five years' experience with top industrial advertising agency, believes he can be of value in utility company sales, promotion, advertising, or public relations department. Thorough knowledge of art production, promotions, advertising and agency contacts. Age 30. **1924.**

General Manager—Operations Manager—with 20 years' experience in natural gas operations. Last ten years in management position. Available immediately. Details and resume upon request. Married, 3 children, age 44. **1925.**

Manager—20 years' experience in managing and operating utility properties. Interested in affiliating with a natural gas company. Good public and employee relations man. College graduate, married, two children. Details upon request. **1926.**

Sales Engineer—individual with 25 years' supervisory experience with major gas company desires sales or operational position with gas company or company associated with gas industry. Outstanding record in gas air conditioning, gas utilization, measurement, odorization and general operations. **1928.**

Manager or Superintendent—12 years' broad practical background in management of medium sized natural gas property. Experience includes direction of: construction, maintenance, sales, customer service work, measurement, regulation, utilization, and related office administration. Desires permanent position with company requiring above experience. Can competently manage medium sized property or head department in large company. Will relocate. Married, age 34. **1929.**

Manufacturer and Utility Company Sales Representative—associated over a year as representative for a water heater manufacturer. Successful obtaining dealer acceptance. Familiar with dealer promotion plans of various utilities. Nine years' sales experience with leading gas utility. Thoroughly experienced in preparing heat loss surveys and selling gas heat. Assisted in supervising a successful sales incentive program for company employees. Married, veteran, details upon request. **1930.**

Market Research Director—Eight years' experience in sales analysis, sales control and market studies. BS in business administration and MBA in Market Research. Married, children, age 34. **1931.**

Young Executive—BS, MA, PhD in Industrial Management seeks responsible position in industrial relations. College teacher for 7 years, management consultant and arbitrator for 7 years, and management consultant and arbitrator for 4 years. Have handled profit-sharing plans, job evaluation, morale studies, managerial development program, and some contract negotiation. Current salary, $8,000. Detailed resume on request. **1932.**

Project Field Engineer—extensive experience manufactured and LP-Gas, catalytic cracking, industrial furnaces, incineration, instrumentation, supervision of plant operations and maintenance. Resume upon request. **1933.**

Administrative-Executive Accountant—experience includes auditor of large combination utility, consultant with management and consulting firm, secretary-treasurer of gas company. Top references, including former employers. Available now. **1934.**

Management Executive—versatile management experience in industry and government including complete responsibility for major segments of large organizations, advising senior executives, formulation of policy, planning, selling, public relations, public speaking, employee training, personnel management and economical maintenance of equipment. **1935.**

Accounting Executive—over 27 years' experience in all phases of utility accounting (9 years in holding company office, 18 years on operating utility properties). Last 16 years treasurer, secretary and director of gas distributee company, last 5 years of which also treasurer and secretary of interstate gas pipeline company. Detailed resume on request. Age 48. **1936.**

Manager Controller System Analyst—25 years utility experience all phases and departments. Heavy Operation and System, accounting, clerical, field, all machines (including IBM punched card and EDPM). General Accounting, Stores, Payroll, Purchasing, Payables, CPR, Service Records and Orders, Construction, Work Orders, Post Card Billing, Consumption Analyses, Mechanical Cash Posting, etc. Procedures, flow charts, form design, wiring, scheduling and instruction. Public Accounting and Consulting experience. BS Accounting—age 46—married—1 child. **1937.**

POSITIONS OPEN

Project Engineer—immediate assignment to last 1½ to 2 years for construction of 200 miles of natural gas pipeline in Middle East. Attractive compensation. Send biographical data and complete resume of education and experience including salary received and reference. **0871.**

Gas Property Manager—nationwide company has opening in New England for progressive sales minded manager for manufactured and bottled gas utility serving a community of approximately 35,000. Submit complete resume of experience. **0872.**

Industrial Gas Engineer—a fine opportunity for an ambitious young engineer in a fast growing eastern gas utility. Salary in line with education and experience. Expenses and company car furnished. In reply please state experience, education and age. **0873.**

Manager-Gas Property—Pennsylvania and Maryland utility with division offices in Maryland and Pennsylvania has opening for a progressive manager. Experience in operation, distribution and selling preferred. Please state age, education and other background information when replying. **0874.**

Gas Engineer—to call on gas distribution companies in a sales capacity. After training at the plant considerable travel would be required. The man selected will be afforded an excellent opportunity to become a key man in a well established business. Salary would be commensurate with ability. Age range 25-35. Reply stating education, experience and personal background. **0875.**

Industrial Gas Sales Engineer—growth utility in midwest has opening in industrial sales for graduate engineer under 40 with two or more years of gas sales or comparable customer contact experience. Excellent opportunity for advancement. When replying, include small photograph along with age, education, other background information, and salary desired. **0876.**

Facts and figures

(Continued from page 11)

July 1957 when 97,800 starts were reported. The July 1958 starts were 4,000 units below June but the Department of Labor was quick to point out that the decline was nevertheless less than usual for this time of the year.

Shipments of most types of gas fired equipment are beginning to reflect the upsurge in home construction. The preference for gas fired heating equipment is evidenced by the fact that for the first six months of this year 409,100 gas fired central heating units were shipped as against 201,445 oil fired heating units.

Appliance data relate to manufacturers' shipments by the entire industry compiled by GAMA. Industry-wide electric appliance statistics are by NEMA and represented by GAMA releases. Oil-fired burner installation data are by *Fuel Oil and Oil Heat*. Gas and electric dryer shipments are by American Home Laundry Manufacturer's Association.

Presentation to agency

IN A REVERSAL of the time-honored "presentation" by the advertising agency, Michigan Consolidated Gas Co. recently made a presentation to its newly appointed advertising agency, MacManus, John & Adams, Inc. F. A. Kaiser, vice-president in charge of sales for the utility, invited the agency's consumer products group and other personnel working on the account to hear the gas company story. They were introduced to a revolutionary new gas refrigerator, heard an impartial comparison of gas ranges with ranges using other fuels, and the story of an awakened gas industry and its plans for the future. Nearly thirty MJA agency people were present.

A.G.A. advisory council

E. R. ACKER.....Poughkeepsie, N. Y.
B. C. ADAMS.....Kansas City, Mo.
F. M. BANKS.....Los Angeles, Calif.
L. L. BAXTER.....Fayetteville, Ark.
LESLIE A. BRANDT.....Chicago, Ill.
DUDLEY B. W. BROWN...New York, N. Y.
WENDELL C. DAVIS.....Chicago, Ill.
J. ROBERT DELANEY.....Cincinnati, Ohio
J. F. DONNELLY SR.....Milwaukee, Wis.
E. H. EACKER.....Boston, Mass.
W. M. ELMER.....Owensboro, Ky.
Mr. HENRY GELLERT.....Seattle, Wash.
ELISHA GRAY II.....St. Joseph, Mich.
LYLE C. HARVEY.....Syracuse, N. Y.
FREDERIC O. HESS.....Dresher, Pa.
J. E. HEYKE.....Brooklyn, N. Y.
J. K. HORTON.....Calgary, Alta.
OAKAH L. JONES.....Toronto, Ont.
D. E. KARN.....Jackson, Mich.
PAUL KAYSER.....El Paso, Texas
GROVE LAWRENCE....Los Angeles, Calif.
WISTER H. LIGON.....Nashville, Tenn.
A. W. LUNDSTRUM.....Columbus, Ohio
WILLIAM G. MAGUIRE...New York, N. Y.
N. H. MALLON.....Dallas, Texas
DEAN H. MITCHELL.....Hammond, Ind.
W. E. MUELLER...Colorado Springs, Colo.
GERALD T. MULLIN....Minneapolis, Minn.
E. A. NORMAN.....Columbus, Ohio
F. T. PARKS.....Denver, Colo.
L. B. RICHARDS.....Harrisburg, Pa.
W. F. ROCKWELL JR.....Pittsburgh, Pa.
FRANK C. SMITH.....Houston, Texas
E. CARL SORBY.....Rockford, Ill.
N. R. SUTHERLAND...San Francisco, Calif.
W. D. SWEETMAN.....Chicago, Ill.
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